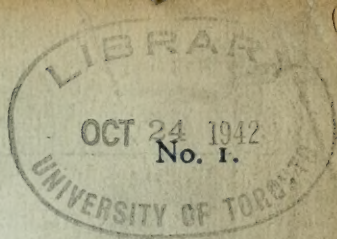


Vol. XII.

RE
1
04
v. 12
no. 1
(NEW SERIES.)



JANUARY, 1903.

med
0
Biological
& Medical
Serials

THE

OPHTHALMIC RECORD

EDITED BY

CASEY A. WOOD, M. D.,

CHICAGO.

EDWARD JACKSON, M. D.,

DENVER, COLO.

G. C. SAVAGE, M. D.,

NASHVILLE.

H. V. WÜRDEMAN, M. D.,

MILWAUKEE.

GEO. E. DE SCHWEINITZ, M. D.,

PHILADELPHIA.

W. E. HOPKINS, M. D.,

SAN FRANCISCO.

JOHN E. WEEKS, M. D.,

NEW YORK.

HAROLD GIFFORD, M. D.,

OMAHA.

FRANK ALLPORT, M. D., CHICAGO.

T. A. WOODRUFF, M. D.,

EDITORIAL SECRETARY,

103 E. ADAMS STREET, CHICAGO, ILL.

PUBLISHED ON THE FIFTEENTH OF THE MONTH.

SUBSCRIPTION RATES: IN THE UNITED STATES, CANADA, AND MEXICO, \$4.00
PER ANNUM, IN ADVANCE. OTHER COUNTRIES OF THE
POSTAL UNION, 18 SHILLINGS.

SINGLE COPIES 50 CENTS.

THE OPHTHALMIC RECORD,
THE HIGH BUILDING, CHICAGO, U. S. A.

COLLABORATORS:

FRANCIS VALK, M. D.,
New York.

A. W. CALHOUN, M. D.,
Atlanta, Ga.

ALVIN A. HUBBELL, M. D.,
Buffalo, N. Y.

E. OLIVER BELT, M. D.,
Washington, D. C.

F. B. EATON, M. D.,
San Francisco, Cal.

E. C. ELLETT, M. D.,
Memphis, Tenn.

C. DEVEREUX MARSHALL, F. R. C. S. Eng., London, England.

DR. GEORGE J. BULL,
Paris, France.

BROWN PUSEY, M. D., Chicago.

MELVILLE BLACK, M. D.,
Denver, Colo.

WM. DUDLEY HALL, M. D.,
Boston, Mass.

ROBERT L. RANDOLPH, M. D.,
Baltimore, Md.

JOHN F. FULTON, M. D.,
St. Paul, Minn.

CLARENCE A. VEASEY, M. D.,
Philadelphia, Pa.

E. A. SHUMWAY, M. D.,
Philadelphia, Pa.

DR. JAMES W. BARRETT,
Melbourne, Australia

The February number of THE OPHTHALMIC RECORD will contain, amongst others, an original article by John E. Weeks, M. D., Panophthalmitis from Infection with the Micrococcus Lanceolatus without a Perforating Wound of the Eyeball; one by Albert E. Bulson, Jr., M. D., Trichloroacetic Acid Treatment of Infective Ulcers of the Cornea; one by Wm. Campbell Posey, M. D., Report of Two Cases of Congenital Anomalies of the Eyes, Illustrating the Transmission of such Defects from Mother to Daughter. There will also appear editorials, society reports, abstracts and personals, and items of interest to the profession.

THE RECORD particularly desires short practical papers on any subject connected with Ophthalmology. These will be published at as early a date as possible. It is understood that, unless otherwise arranged, original articles, when accepted, are contributed to the RECORD exclusively. Illustrative cuts will be made at the expense of the journal, and proofs for correction will be sent to authors when desired. Reprints with covers will be furnished at cost. The RECORD will be issued monthly, and each number will contain about 54 pages of reading matter.

Address all communications relating to Editorial Department to

T. A. WOODRUFF, M. D., Editorial Secretary.

103 E. Adams Street, CHICAGO.

Subscriptions and Advertisements should be sent to the Publisher, The High Building, Chicago, Ill., U. S. A.

Sole Subscription Agents for Great Britain, J. RAPHAEL & CO., 51 Clerkenwell Road, London, E. C.

TABLE OF CONTENTS.

I. ORIGINAL ARTICLES.

	PAGE
I. Muscle Study in the Light of Neuricity, Tonicity and Contractility, by G. C. SAVAGE, M. D. , <i>Nashville, Tenn.</i>	1
II. A Case of Idiosyncrasy to Homatropine and Atropine, by WILLIAM LINTON PHILLIPS, M. D. , <i>Buffalo, N. Y.</i>	5
III. The Ophthalmometer in Determining Errors of Refraction, by LEWIS H. TAYLOR, M. D. , <i>Wilkesbarre, Pa.</i>	6
IV. Report of a Case of Dermoid Tumor of the Corneo-Scleral Margin, by ADOLPH O. PFINGST, M. D. , <i>Louisville, Ky.</i>	7
V. The Therapeutic Value of Large Doses of the Salicylates in Uveitis, by H. Mcl. MORTON, M. D. , <i>Minneapolis.</i>	10
VI. A Simple and Convenient Method for the Mounting of Macroscopic Specimens, by H. Mcl. MORTON, M. D. , <i>Minneapolis.</i> Illustrated.	11
VII. A Case of Unilateral Hemianopsia in Which the Wernicke Hemianopsia Pupillary Reaction was Present, by CHARLES J. KIPP, M. D. , <i>Newark, N. J.</i>	13
VIII. Improvement of Vision in Amblyopia-From-Non-Use, by HARRY FRIEDENWALD, A. B., M. D. , <i>Baltimore, Md.</i>	15
IX. Report of a Case of Pseudo-Torticollis with Abnormal Associated Movements of Head and Eyes, by EUGENE RICHARDS LEWIS, M. D. , <i>Dubuque, Ia.</i>	22
X. Toxic Amblyopia from Oil of Wintergreen, by Wm. L. BAUM, M. D. , <i>Chicago.</i>	25
XI. One Hundred and Fifty Magnet Operations, by Wm. A. FISHER, M. D. , <i>Chicago.</i> Illustrated.	26

II. EDITORIAL.

I. The Term Skiascopy.	33
II. The Toxicity of Methyl Alcohol.	34

III. REPORTS OF SOCIETIES.

I. Society of Ophthalmologists and Otologists of Washington, D. C..	37
II. Section on Ophthalmology—College of Physicians of Philadelphia	39
III. Detroit Ophthalmologic and Otologic Club.	42
IV. Chicago Ophthalmological and Otological Society.	45

IV. NOTES AND NEWS.

I. Personals and Items of Interest.	52
---	----

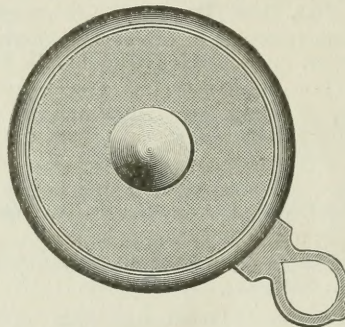
THE CONE MUSCLE TEST

Designed by Professor G. A. ROGERS

The new Muscle Test here illustrated and presented for the first time, consists of a cone cemented to a ground glass disk and is used as follows: It is inserted into one cell of trial frame, which must be properly centered as to pupillary distance, and a solid blank disk is put into the other cell. The patient's attention is then directed to a light (preferably a candle or small gas light) twenty feet away; and the action of the cone is such that the light will resolve itself into a circle of light. The other eye is then uncovered and if there is no

We do the
largest volume
of R work
done by
any house in the
world

**MOST ACCURATE
MOST PROMPT**



We do the
largest volume
of R work
done by
any house in the
world

**MOST ACCURATE
MOST PROMPT**

muscular error the light will appear in the center of the circle. If there is muscular error the light will be either above or below or to one side of center, and can be brought to center by the proper prism with base in proper position.

This does away with necessity for computations where there is combined prismatic error in different angles and gives at once the position of the base of the correcting prism.

Price, each, - - \$2.00

F. A. HARDY & COMPANY
WHOLESALE AND MANUFACTURING OPTICIANS

The Silversmiths Bldg., CHICAGO

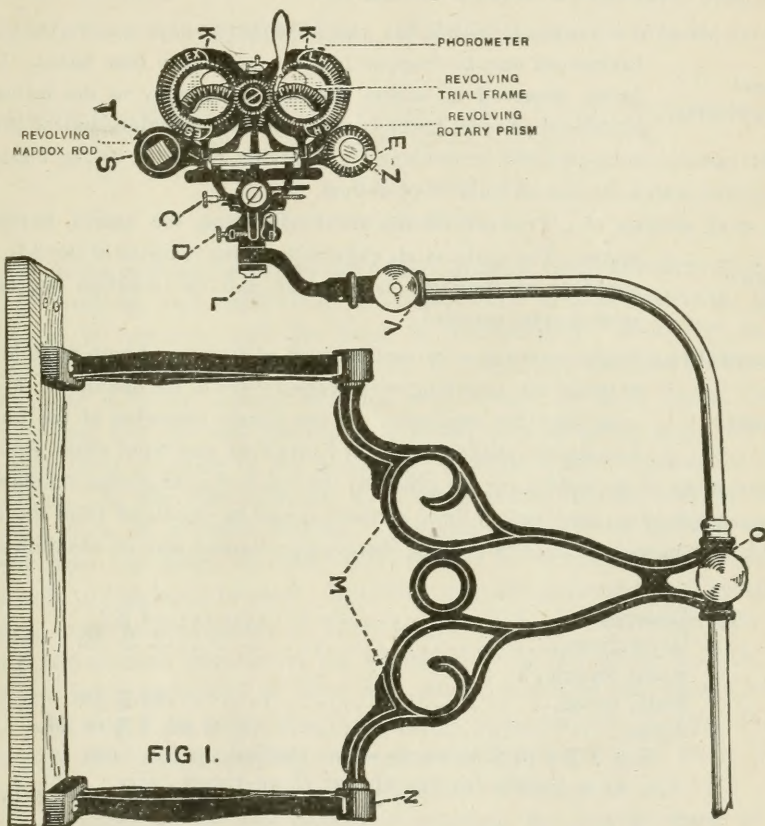
Branches: Atlanta, Denver, Paris

THE REIMOLD OPTOMETER

COMBINES

A Revolving Cell Trial Frame,
A Revolving Risley Rotary Prism,
A Revolving Maddox Rod,
An Improved Stevens Phorometer.

Any one of them can be used independently of any other or in conjunction with each other. There is no muscular tests resorted to to-day that are not within the scope of this instrument. Send for descriptive pamphlet.



PRICE REDUCED FROM \$65 TO \$45. SEND DIRECT TO THE MANUFACTURER.

MANUFACTURED BY

Wm. F. REIMOLD,
Manufacturing Optician, 41 N. 13th Street,
PHILADELPHIA, PA.

When writing please mention the Ophthalmic Record.

LISTERINE

IN DISEASES OF THE EYE AND EAR.

The same satisfactory results following the use of LISTERINE in all sub-acute and chronic inflammations of mucous membranes are attained by its judicious employment upon the more sensitive surfaces of the eye and ear.

If the period of active pus formation has continued for two days or more, the undiluted LISTERINE may be dropped into the eye every four hours. In those forms, observed in infants, showing a tendency to the formation of pseudo-membrane, LISTERINE is specially valuable, and of great service in all cases of muco-purulent or purulent conjunctivitis, preceded by the cleansing of the membrane with a solution of chloride of sodium.

A weak solution of LISTERINE affords great relief from the heated, burning sensation. The scaly, sandy exfoliation of the margins of the lids, and the shedding of eyelashes is checked, and the constant succession of minute styes arrested.

LISTERINE is largely resorted to in the treatment of diseases of both the middle and external ear, according to the varied views of the operators. Many precede the "dry treatment" by the gentle cleansing of the parts with LISTERINE, slightly warm, or LISTERINE and tepid water, equal parts. As inflammations of the middle ear are generally the result of an extension of inflammation from the naso-pharynx, treatment of these surfaces should be instituted from the onset of the attack. The nose and throat should be thoroughly cleansed with an alkaline solution, such as:

R Listerine,.....f 3 i
 Glycerinum,.....f 3 iii
 Sodii bicarb.,
 Sodii boras,.....ää 3 jss
 Aquæ,.....q. s. ad. f 3 iv M.
 Sig. f 3 i in 3 ii warm water snuffed up the nose,
 and as a gargle for the throat three times daily.

An interesting little brochure, entitled:
 "The TREATMENT of DISEASES of the RESPIRATORY SYSTEM"
 will be mailed to your address, upon application.

Lambert Pharmacal Co., ST. LOUIS.

THE OPHTHALMIC RECORD

A MONTHLY REVIEW OF THE PROGRESS
OF OPHTHALMOLOGY.

VOLUME XII. No. 1. CHICAGO, JANUARY, 1903. NEW SERIES.

ORIGINAL ARTICLES.

MUSCLE STUDY IN THE LIGHT OF NEURICITY, TONICITY, AND CONTRACTILITY.

BY G. C. SAVAGE, M. D.,
NASHVILLE, TENN.

In the accurate study of the ocular muscles there are three things that must be kept constantly in mind. The first is *neuricity*, the second is *tonicity*, and the third is *contractility*. Neuricity is a word that has been coined by Dr. G. W. Drake, of Hollins Institute, Va., and a better coinage has not been made. By it is meant that influence, not yet well understood, which travels along nerve fibres, either from a center to the periphery, or from a nerve ending to the center. In the one instance it is an efferent current and in the other it is an afferent current. The one is a nervous impulse sent out from the brain or cord; the other is a nervous sensation that is sent to the brain or cord. Neuricity must be generated and stored; and, to become manifest, it must be liberated and conducted. It is not the present purpose of the writer to study the question How or where is it generated? or How is it stored, liberated and conducted? It sufficiently resembles electricity in all these respects to more than justify the name *neuricity*. The present purpose is to study the efferent current that controls the muscles of the eye.

Tonicity is an apt term and signifies the restful state of a muscle, or a muscle under the minimum of nerve influence—neuricity. In any pair of muscles, the tonicity of one may be represented by *a* and the tonicity of the other by *b*; and the neuricity causing involuntary contractility of any muscle may be represented by *x*.

When the head is in the primary position and the eyes are so set that the two visual axes lie in the extended horizontal plane, and are

practically parallel with the extended median plane of the head, while the vertical axes are parallel with the median plane, the twelve extrinsic ocular muscles should be in a state of tonicity only; that is, each muscle should be under the influence of the minimum of neuricity. Such a condition of the muscles is orthophoria. In this condition the tonicity, a , of the internus equals the tonicity, b , of the externus; the tonicity, a , of the superior rectus equals the tonicity, b , of the inferior rectus; the tonicity, a , of the superior oblique equals the tonicity, b , of the inferior oblique. Such a perfect state of muscle harmony presupposes that the muscles of accommodation are, likewise, in a state of tonicity, the eyes being either emmetropic or myopic.

The tonicity of any extrinsic ocular muscle is determined by its origin and insertion, which fixes its length, and by the size or volume of the muscle. There is power in the tonicity of any pair of ocular muscles and this power is manifested in the placing of the eye, when not under the influence of the guiding sensation, in a definite position in the orbit. This position is always shown by a proper phorometric test. If there is lateral orthophoria $a = b$, (a being the tonicity of the internus and b being the tonicity of the externus). If there is esophoria a is greater than b ; and if there is exophoria b is greater than a . The quantity of the esophoria shows the degree of contractility necessary on the part of the externus, added to its tonicity, for placing the eye in the primary position. Representing the neuricity for exciting involuntary contractility by x , we have $a = b + x$. This contractility is excited by neuricity, not from a volitional center but from a basal or involuntary center, which center never discharges neuricity except under abnormal conditions.

Likewise the quantity of the exophoria shows the degree of contraction on the part of the internus needed to supplement its tonicity, in placing the eye in the primary position. In this condition $b = a + x$. The neuricity exciting the contraction of the internus comes from a basal center and not from the volitional convergence center. The basal centers may be compared to storage batteries, in that they soon become exhausted. They are certainly relay stations for the volitional centers—the nine conjugate centers.

What has been said of the lateral muscles is true of the other pairs. The only desirable, non-exhausting condition of any pair of ocular muscles is that of orthophoria, in which state the basal center of neither muscle is ever called on to discharge its stored neuricity.

In any form of heterophoria, the basal centers are kept in a state

of constant activity to assist the volitional centers in maintaining binocular single vision, whereas, in orthophoria the volitional centers act alone. Several illustrations may be given. In a case of esophoria, the basal center of one or both externi is always in a state of excitation—is always discharging neuricity, in the interest of binocular single vision. In looking at any point located anywhere on the line of intersection of the extended vertical and horizontal planes of the head, the basal centers for the two externi are kept in action to prevent the visual axes from crossing between the object and the observer. If the object is at infinity, contractility plus tonicity of both externi is necessary to equal the tonicity of the interni; if the object is near by, the normal impulse sent from the volitional center of convergence (the 3rd conjugate center) is restrained from producing excessive convergence, by reflex excitation of the basal centers of both externi. If the object to be fixed is directly to the right, the eyes will be made to move in that direction by a discharge of neuricity from the 4th conjugate brain center, which discharge is sent in equal quantities to the right externus and the left internus. Since the left internus has greater tonicity in esophoria, than has the right externus, the response of the former would be more powerful than the response of the latter, under the stimulus of a given quantity of neuricity, hence the sweep of the left eye would be more rapid than the sweep of the right. To prevent the diplopia that would result, the neuricity sent to the right externus from the 4th conjugate (volitional) center must be supplemented by neuricity from the basal (involuntary) center connected with this muscle. In this movement of the two eyes the right internus and the left externus receive no neuricity from either voluntary or involuntary centers. To make this illustration clearer, the neuricity for exciting involuntary contractility may be represented by x as already shown, while the neuricity for exciting voluntary contractility may be represented by y . Since a represents the tonicity of the internus and b represents the tonicity of the externus, the following formula would represent the right-sweep of the eyes: $b + y + x = a + y$. In a case of exophoria the right-sweep of the eyes would give the following formula: $b + y = a + y + x$. In lateral orthophoria the right-sweep of the eyes would give the following formula: $b + y = a + y$. In all voluntary movements $y = y$, for the neurocity sent out by any conjugate brain-center is equally divided between the two muscles over which it presides.

Every cardinal movement of the eyes might be illustrated in the same simple way for both orthophoria and all forms of heterophoria; and so could all oblique movements be thus studied.

The principle involved in the treatment, surgical or non-surgical, of any and all forms of heterophoria, is the elimination of x , which is the doing away with the necessity for any excitation of the basal, or involuntary, centers connected with the ocular muscles. In other words, the aim of all treatment is to so relate the muscles of any pair that the tonicity of the one shall equal the tonicity of the other. In such a state, since y always equals y , the formula, of necessity, would be $a + y = b + y$, whatever may be the direction of the point of fixation.

Can prisms in positions of rest eliminate x ? Yes, but only when the prismatic effect is equally divided between the two eyes, provided the error is equal in the two. How? By allowing the eyes to assume those positions which the tonicity of muscles would cause. This would mean a full prismatic correction of the error. Prisms interfere with some of the visual judgments and are, therefore, objectionable.

Gymnastic exercise, rhythmic in character, of the weaker muscle of a pair will increase its size and therefore will augment its tonicity, so as finally to make $a = b$. In suitable cases exercise is the ideal method of treatment. It eliminates x .

In many cases the heterophoria is so great that prisms cannot be given, nor can the tonicity of the weaker muscle of a pair be so increased by exercise as to eliminate x . In these cases operations alone are capable of effecting a cure—the elimination of x . An operation on the weaker muscle must increase its tonicity, while an operation on the stronger muscles is intended to diminish its tonicity. In either case the aim is to make the tonicity of the one muscle equal the tonicity of the other. One of two operations on the weaker muscle will increase its tonicity: The one to be preferred is the shortening or tucking; the other is advancement of its insertion. On the stronger muscle, for lessening its tonicity there is but one operation, viz., central partial tenotomy. Since the heterophoric condition is, practically, always equal in the two eyes, the operative effect, whether to increase or diminish tonicity, should be equally divided between the two eyes.

Pseudo-heterophoria always depends on errors of refraction and are curable by lenses.

A CASE OF IDIOSYNCRASY TO HOMATROPINE AND ATROPINE.

BY WILLIAM LINTON PHILLIPS, M. D.

Clinical Instructor in Ophthalmology at the University of Buffalo, Ophthalmologist to the New German Hospital Dispensary, Buffalo, N. Y.

We are taught in text books that mydriatics dilate the pupil and cycloplegics paralyze the accommodation and with but two exceptions these two conditions go hand in hand, the exceptions being cocaine and euphthalmin. But we are not taught that to these exceptions atropine and homatropine may at times be added, neither can I find a single case reported where these two drugs have failed to produce the desired effect even when pushed to the point of intoxication, providing there be no pathological condition present to bind down the iris.

This was the first case to come under my care, although I have seen others where atropine had to be used as homatropine was not powerful enough to paralyze the accommodation, although dilated the pupil in each case.

March 26, 1901, Miss D—; age 27, came to me with the following symptoms: Pain over eyes and base of neck, passing through head to forehead, eyeballs very painful to touch, had been unable to read, sew or use eyes for any near work since 1887, when she gave up school on the advice of an oculist who treated her for months with no result, being unable to find any refractive error. Receiving no benefit she consulted another oculist, who told her she did not need glasses and failed like the first.

The patient was of a nervous temperament but with a will power that was able to resist the action of atropine if that were possible, she was a decided brunette, which I mention as it is a well known fact that brunettes will resist the action of a mydriatic longer than blondes.

I tried to dilate her pupils with a solution of homatropine 5 grains to the ounce combined with cocaine $2\frac{1}{2}$ grains, this was instilled in the eyes every ten minutes for one hour and a half, she being at the last instillation able to see the finest print when in the light, her pupils were contracted but would dilate if the room was slightly darkened, this seeming to be only normal and the homatropine was acting slowly, I dropped it in for $\frac{3}{4}$ of an hour longer and proceeded to examine the fundus with the ophthalmoscope, but the instant the light was flashed on the retina the pupils contracted to pinheads, it being late in the afternoon and my office becoming dark

I decided to try atropine, thinking the homatropine was at fault and the darkened room dilated the pupils rather than the drug.

The atropine was a 2 per cent solution which I dropped in once that night and ordered it twice the next day. When I next saw her she complained of the following symptoms: When in the direct rays of the sun she was able to see the finest print, but when in her room, which was rather dark, she was hardly able to see faces, again the use of the ophthalmoscope produced contraction of the pupils to the size of pin heads, this condition remained for five days.

The homatropine I used on other patients and in all cases so used it produced a mydriatic effect, the atropine I used one year from that date, producing full mydriasis and both acted as cycloplegies.

To measure the refraction of this case I darkened the room so that the pupils dilated, as I was otherwise unable to tell by her answers whether she would accept a plus or minus sphere or cylinder, the contraction of the pupils was so great it destroyed the shadow test, but with a darkened room she accepted V. R. + .62 + .12 60°

V. L. + .62 + .12 130°

less $\frac{1}{4}$ which was prescribed.

Her vision before the mydriatic was 20/15 in each eye or a little more than normal. From the time she received her glasses until the present time, Sept. 15, 1902, she was entirely free from any of her previous trouble and able to use her eyes under all circumstances, at this date she accepted a stronger cylinder at a different axis without the sphere and with the same good results.

This time the resistance of the drugs was not so great nor the pupillary contraction so marked when examined under the ophthalmoscope, although I had to darken the room. I will not attempt to explain this rare case, for I think it was an idiosyncrasy and only adds one more mystery to that peculiar condition.

THE OPHTHALMOMETER IN DETERMINING ERRORS OF REFRACTION.

BY LEWIS H. TAYLOR, M. D.,
WILKESBARRE, PA.

The ophthalmometer has proven of such excellent help in my daily practice that I should feel its loss very greatly were I deprived of its use, but that its reading cannot always be relied upon in the final fitting of glasses is well shown by the following case: Mrs.

T. K., age 31, came to me recently for refitting of glasses. V. OD. $20/\frac{2}{3} 0$ L; OS. $20/\frac{4}{4} \frac{2}{4} 0$. She complained of much headache and difficulty in using her eyes for continuous work.

She was wearing + 1.25 cy. ax. 180° ; OS. + 25 cy. ax. 180° which were fitted 12 years ago by an excellent oculist. They do not now improve the vision. The ophthalmometer gave OD. 7 D. ax. 115° ; OS 2 D. ax. 60° . Subjective test without mydriases was fruitless. Under atropia she selected OD. + 1.25 cy. ax. $115^\circ = -75$ cy. ax. 25° ; OS + .75 cy. ax. $180^\circ = -50$ cy. ax. 90° . Thinking my ophthalmometer reading must be wrong or that with accommodation relaxed it would at least be different I again made a careful examination and found it almost the same as before: OD. 6.50 D. ax. 115° ; OS. 2.50 D. ax. 60° .

The final selection was: OD. + 1.25 cy. ax. $115^\circ = -.25$ cy. ax. 25° ; OS. + .75 cy. ax. $180^\circ = -37$ cy. ax. 90° , making vision almost 20/xx in each. The left eye would not at all accept the axis shown by the ophthalmometer.

This is simply an interesting case showing that the corneal astigmatism may be affected by lenticular astigmatism, but it does not show by any means, that the ophthalmometer is a useless instrument.

One should make use of various methods in determining refraction errors and even then will find his skill and judgment taxed to the utmost in some rare and difficult cases.

REPORT OF A CASE OF DERMOID TUMOR OF THE CORNEO-SCLERAL MARGIN*

BY ADOLPH O. PFINGST, M. D.,

LOUISVILLE, KY.

Cases of dermoid tumors occurring on the eyeball are rather infrequent and consequently justify publication.

The growth which I beg to report was removed from a young woman of 26 years, who was otherwise in perfect health and had no other congenital deformity. A very small "birth mark" had been noticed on the right eye by her parents since birth. It had gradually increased in size until it became annoying to her, which determined her to have it removed. When I saw her the right eye presented at the outer inferior quadrant of the corneo-scleral margin

* Reported to the Louisville Surgical Society, Louisville, Ky., Nov., 1902.

a convex yellowish pink growth of firm consistence. It measured a little more than one-fourth inch across and was elevated one-eighth inch above the surface. Half of it was adherent to the cornea and half to the sclera. The surface was smooth, but presented six or more rather long hairs projecting from it. To the naked eye it made the impression of an elevated island of skin engrafted on the cornea and sclera.

It was removed by grasping it with forceps and severing it at its base from the underlying tissues with a Graefe cataract knife. Every visible remnant of the tumor was removed with knife or curved scissors. It was of interest to note that the patient suffered considerable pain during the operation, the skin surface having evidently prevented the action of the cocaine, which had been instilled into the eye.

Microscopically the removed mass was seen to have a covering of stratified epithelium, whose superficial cells were flat, and the deepest layer columnar. Numerous small or rudimentary papillæ projected into the epithelial layer from the deeper structures. The mass of the growth was made up of interlacing fibers of white fibrous tissue and nonstriated muscular fibers with more or less elastic tissue. This structure extended close to the superficial epithelium. The sub-epithelial layer of areolar tissue found in normal skin was absent. The absence of adipose tissue and sweat glands was also noticeable. Half of the specimen was examined in sections, but no sign of sudoriferous glands could be found. Oblique sections of hairs and follicles surrounded by sebaceous glands were numerous. Blood vessels were abundant throughout the growth.

Considerable reaction followed the operation, swelling of the lids lasting 4 to 5 days. The corneal defect covered over rapidly, but over the sclera a small bead of granulation tissue sprung up. This was touched with nitrate of silver crystals every second or third day until it disappeared. Vision of the right eye before and after the operation was 20/50, defective function evidently being due to irregularity of the cornea. Vision of the left eye was perfect. Both fundi were normal.

Dermoids are the most common of the teratoid tumors—cysts being far more common than dermoid tumors in the strict sense of the term. The latter are made up usually of fatty and white fibrous tissue and occasionally contain portions of hyaline cartilage. They have an investing membrane of epithelium. Their structure

is characterized usually by the presence of all structures which enter into the makeup of normal skin, viz.: hairs and hair follicles, sebaceous and sudoriferous glands, nonstriated muscular fibers and adipose tissue.

The name dermoid tumors was given these growths by Ryba in 1853 when he described the first case of the kind on record. They are congenital defects and are supposed to be remnants of amniotic membrane implanted upon the eye during the first two or three months of intrauterine life, while the lids are yet apart. Von Hippel states that 65 per cent of these cases are associated with other congenital malformations, principally with coloboma of the lids, iris or choroid, but also with cleft palate and harelip. In cases of congenital defect of the lids the tumors could originate after closure of the lids, or in other words, after the second or third month.

The most frequent seat of dermoid tumors is at the outer and inferior margin of the cornea. They usually spring from the conjunctiva but encroach upon the superficial corneal and scleral tissue. Exceptionally they spring from the carnucle or from the cornea. They nearly always occur singly, but cases are on record where the two eyes had symmetrically located growths and also where two growths sprung from the same eye, one from the outer the other from the inner corneal margin. Although usually flat they sometimes have a conical shape and exceptionally have been found pedunculated. Treacher Collins states that they are nearly always oval, their long diameter corresponding with the palpebral fissure. Frequently they retain their original size indefinitely, but more often there is a gradual increase in size, due to the development of adipose tissue, when they are spoken of as lipodermoids. Their usual size is $\frac{2}{8}$ to $\frac{3}{8}$ inches in diameter and $\frac{1}{8}$ inch in height. Dermoid tumors of the corneo-scleral margin have also been observed in lower animals, notably sheep and cattle. Their presence on the eye usually causes no symptoms unless very large. The hairs on the surface which usually make their appearance about puberty, may set up conjunctival inflammation and it is about this time that these patients most frequently consult the surgeon. These growths should be removed, if for no other reason than to gain a cosmetic effect. Knapp recommends that they be removed early—after the child has passed the first year. The danger of recurrence is slight if excision has been complete.

THE THERAPEUTIC VALUE OF LARGE DOSES OF THE SALICYLATES IN UVEITIS.

BY H. McL. MORTON, M. D.,
MINNEAPOLIS.

Eleven years ago, through the fortuity of an error on the part of the druggist, a patient of mine, afflicted with plastic iritis, took several very large doses of the salicylate of soda and as a result, was remarkably benefited. The sudden improvement, with the decrease of the subjective symptoms surprised me, when the patient presented herself the following day, and careful inquiry elicited the fact that she had taken four or five sixty-grain doses of the salicylate of soda, repeated every three hours.

The large doses had induced slight tinnitus and a feeling of weakness about the knees, but not enough to inconvenience or alarm the patient. Since that time I have administered large doses of the salicylates in practically all cases of inflammation of the uveal tract, and with very satisfactory results. Where the usual dosage of from ten to twenty grains is attended with no noticeable benefit the administration of thirty to sixty grains of the salicylate of soda and repeated, will often prove efficient in hastening resolution and acts most favorably as an analgesic.

Should any unfavorable symptoms follow its administration it may be discontinued for an interval to be again repeated. I find the drug is best administered in cold water and upon an empty stomach, the absorption of the drug taking place very rapidly.

Dr. W. B. Marple in a paper before the last meeting of the Section of Ophthalmology of the American Medical Association, speaks of Dr. Gifford's recognition of the value of large doses of the salicylates (from fifty to one hundred and fifty grains a day being given) in cases of uveitis. The discussion following this excellent paper, shows a general recognition of the value of larger dosage over the heretofore smaller doses administered, but I am constrained to think that it is not fully appreciated, that a much more heroic administration of the drug than was advised at this meeting is necessary to obtain the best effects. It is true that in certain cases we find some intolerance to the drug and this must be accepted and substitute measures instituted. In the severe cases of uveitis I administer 40 grains of the salicylate of soda every two or three hours, until relief is obtained or its continuance is deemed inadvisable, or no longer necessary. By the administration of a single large dose

of sixty grains, followed by smaller doses, one may oftentimes obtain remarkable relief from the intense pain due to the ciliary engorgement. Before the administration of such a large dose, it may be well to test any possible idiosyncrasy of the patient to the drug by a few smaller doses. Clinicians have believed that the drug is a depressant of the heart, but this E. Marageliano finds not true. In moderate dosage he found the arterial pressure elevated rather than depressed by this drug. While I have never yet had any alarming or unpleasant results follow the administration of the salicylates as described, the patient should be carefully watched and the drug withdrawn in the event of unfavorable symptoms. In connection with its administration the frequent use of an effervescent aperient, and the hypodermic use of pilocarpine with a careful diet adjusted to the needs of the particular case may be added.

Locally four or six leeches applied to the temple near the outer canthus are frequently of service and may be followed by rapid dilation of the pupil in cases where atropine alone has failed to act. There is an important fact to be remembered in certain cases of iritis, especially in that class of cases in which the ciliary body largely participates in the attack and it is this; that atropine is often harmful. The dilatation of the pupil gives less area for the blood, which is thereby dammed back into the already overloaded ciliary body. In many such cases the use of scopalamine with the occasional use of eserine, is better than the routine use of atropine. I am convinced that there are cases of inflammation of the ciliary body and iris in which atropine does not act favorably.

A SIMPLE AND CONVENIENT METHOD FOR THE MOUNTING OF MACROSCOPIC SPECIMENS.

BY H. McI. MORTON, M. D.,
MINNEAPOLIS.

Illustrated.

During the past year, while working with Greeff in the Royal Charité in Berlin, I learned a method of mounting gross specimens that has to commend it such simplicity, and freedom from annoyance and time-taking detail, that I deem it of sufficient practical importance to describe.

While the method is described in his "Anleitung zur mikroskopischen Untersuchung des Auges," it is not accessible to all readers

12 METHOD FOR MOUNTING MACROSCOPIC SPECIMENS.

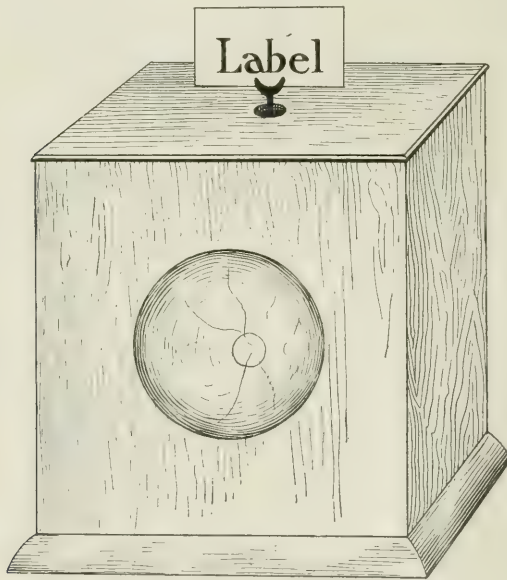
and furthermore the description there is entirely too brief, and the successive steps of the method are not explicitly described. The following will describe the steps in detail:

First: Harden the fresh specimen in 10 per cent formalin for from two to four days.

Second: Cut the eye as you desire to mount it. If to show the posterior or anterior segments, cut equatorially and if to show the lateral or longitudinal eye, cut meridionally.

Third: Wash in distilled water for ten minutes.

Fourth: Dry specimen carefully with cloth (if it is desired to remove the retina, this may be done with a cloth or a small brush).



Fifth: Make the eye fast to the back of the glass mounting jar (see illustration) with gelatine (simply mix the gelatine with a little water and heat slowly for a few hours or over night).

Sixth: After the specimen is fixed to the posterior wall of the cell let it dry for two or three minutes until sure it is well attached.

Seventh: Fill the glass jar with 10 per cent (or even 4 per cent) formalin in watery solution.

Eighth: After very thoroughly drying the top of the cell fasten

it down with gutta-percha cement. One may also cement a small clasp on the top of the glass jar to hold the label (see illustration).

Ninth: Paint about the edges and over the gutta-percha with white (or any color) paint.

The foregoing description is more in detail than one can obtain it in Greeff's splendid little book, and is the method I now follow in the mounting of specimens in my own work. When one has the gelatine the gutta-percha and the formalin prepared, the entire process takes little time, and the specimen may be taken after an operation and within two or three days be mounted in the cell and set upon the shelf for reference.

A CASE OF UNILATERAL HEMIANOPSIA IN WHICH THE WERNICKE HEMIANOPSIA PUPILLARY RE- ACTION WAS PRESENT.

BY CHARLES J. KIPP, M. D.,
NEWARK, N. J.

An unmarried woman, about 50 years of age, who had been, previous to the accident, in excellent health, was thrown from a carriage and struck on her head. She was taken to a hospital in an unconscious condition and remained in this condition for three weeks. On recovering consciousness she noticed that she was blind in the left eye and that the vision of the right eye was much impaired. I saw her for the first time about three months after the accident. She was at that time in fair health and the function of the other senses was unimpaired.

She has an unadherent scar on right half of forehead and the upper lid of right eye. Both eyes were normal in appearance, and the mobility of each was unimpaired. The right eye was emmetropic and S 5/10. The ophthalmoscope examination revealed nothing abnormal except, perhaps, slight blanching of the nasal half of the optic papilla. The examination of the visual field of this eye showed right hemianopsia, the defect passing through the center of fixation. The left half of the field was of normal extent for form and for colors.

The left eye was totally blind. The pupil was somewhat larger than that of the right eye, did not contract on exposure to light, but

reacted consensually. The optic papilla was very white and the vessels were much smaller than those of the right eye.

Examination of the pupillary reaction of *the right eye* according to the Schmidt-Rimpler method left it undecided whether or not the blind half of the retina reacted to light less than the other half. Several examinations made since then have, however, convinced me that the pupil contracts much more promptly and more extensively when the seeing half of the retina is illuminated than when the light is thrown on the blind half. In the last few months I have made a number of examinations with an instrument devised by Drs. v. Fragstein and Kemper, of Wiesbaden, Germany, and described in *Fehnder's Klinische Monatsblätter*, 1899, page 243, and I am now no longer in doubt *that the contraction of the pupil takes place only, or at least, much more promptly and more extensively, when the light falls on the temporal half of the retina.* I have taken every precaution to exclude error. The examination was made in a long, dark room, with the patient's eye fixed on an object twenty feet away.

Haab's brain cortex reflex of the pupil, I kept in mind and I am sure that the contraction was not the result of it. The pupil of the left eye contracted consensually.

It seems most probable that in this case the *left optic tract* was torn or otherwise injured, and that the *left optic nerve* was torn or compressed in the optic foramen, perhaps, by fracture of the bone, or that the chiasm was torn in the median line.

There are a few cases on record similar to this one here reported, and are to be found in *Vossius' veber die hemianopische Pupillenstarre* Halle A. S., 1901. His own case is almost identical with the one reported above, except that in his case, one-sided deafness was present, which was supposed to have been the result of fracture of the petrous portion of the temporal bone.

Vossius (op. cit.) says that about an equal number of writers approve of and oppose Wernicke's teaching. Some deny the existence of and others the possibility of bringing about the pupillary phenomenon. It is no doubt seldom seen, as the fundamental condition for bringing it about, *i. e.*, complete interruption of the conductivity, is not very frequently met with. It is therefore very desirable that every case in which the hemianopsia inaction, or rather the hemianopsia pupillary reaction, is observed, be published. In this I agree with him and therefore put the above case on record.

IMPROVEMENT OF VISION IN AMBLYOPIA-FROM-NON-USE.*

BY HARRY FRIEDENWALD, A. B., M. D.,
BALTIMORE, MD.

Professor of Ophthalmology and Otology, College of Physicians and Surgeons, Baltimore.

The nature of amblyopia found in strabismus has been an object of inquiry for a number of years. Ophthalmologists had gradually become united in the view that while many squinting eyes were congenitally defective, strabismus itself led to amblyopia, or increased that previously present. It was Schweigger,¹ in the early eighties, who disturbed this peace of mind by offering arguments to show that the amblyopia of strabismus was in all cases a congenital defect, and that when improvement in vision occurred, either after an operation, or by exercise, it was due to correction of the hypermetropia and to the improvement in the use of accommodation. A. Graefe added support to Schweigger's theory and for a number of years it obtained wide adoption, although many ophthalmologists continued to adhere to the old view. Strange to say, the only arguments which could finally settle the question were slow in coming; these were, first, definite cases in which eyes with good vision became amblyopic from strabismus, and, secondly, cases of marked improvement in vision in previously amblyopic eyes after their continued use.

A. As to the first I am able to find but few cases.

1. Schmidt-Rimpler² relates the case of a boy aged seven with high strabismus and normal vision in each eye. An operation failed to correct the defect entirely. Ten years later the squinting eye could only count fingers at four meters.

2. Lewuillon³ reports a similar case.

3. Senn⁴ stated recently that he has not only been able to improve vision in the amblyopic eye by permanent closure of the fixating eye, but has even been able to produce amblyopia in the previously good eye.

4. But the most important case is that of Dr. Risley.⁵ In a dis-

Read by Title American Ophthalmological Society, July, 1902.

1. Klin. Studien ueber das Schielen, Berlin, 1884.

2. Augenheilkunde und Ophthalmoscopie.

3. Annales d'Oculistique, 1893.

4. Wochenschr. f. Therap und Hygiene des Auges, Vol. IV., p. 221. (1902.)

5. See Transact. Oph. Society, Vol. VI., p. 556. Previously reported in the Phila. Med. Times, 1873, p. 453.

cussion before this society in 1893 he related a "case in which the R. E., which was amblyopic, had been operated upon to correct the strong convergence; after four years the case again came under his observation, the L. E. now being the squinting eye. The R. E. before the operation had been almost blind, but now had perfect vision, while the L. E. had been reduced to eccentric vision so that the patient could barely count fingers. Tenotomy was done, the refraction corrected, and exercise ordered, and that at the end of three months, the vision of the poor eye rose to 6/7.5.

B. The list of cases which tend to prove that an amblyopic eye may recover its sight, is now becoming quite numerous. In 1896 Straub collected the following references:

1. Romiée,⁶ reported that systematic exercise after strabismus operation has led to improvement of the vision of the squinting up to one-sixth, to one-third, or one-half, according to the degree of amblyopia.

2. Javal,⁷ after very prolonged exercise, succeeded in restoring perfect binocular vision to a patient who had had the highest degree of unilateral amblyopia.

3. Burchardt⁸ reported that a few days after operation vision rose from counting of fingers to 3/10.

4. Dr. Johnson⁹ reported in this society in 1893 the case of a young man of nineteen who had had strabismus from the age of three. Vision of the R. E. was perfect, that of the L. E. enabled him to count fingers at six inches. A few days after the examination his good eye was injured and the eyeball removed. Vision rapidly improved until in about two weeks it reached 20/15 with or without correction of his hypermetropia.

5. Dr. Risley,¹⁰ in discussing Johnson's paper, reported three cases. The first is mentioned above.

6. In Risley's second case, by prolonged exercise, vision of both eyes was kept at 6/7.5 or 6/9. After six months of neglect, Vision in the squinting eye sunk to 1/3. By exercise and an operation, which restored binocular vision, 6/6 was obtained in each eye.

7. Risley's third case (not mentioned by Straub) is that of a child which had convergent strabismus with vision reduced to

6. *Annales de la Société Medico-chirurgicale de Liège*, 1880.

7. *Annales d'Oculistique*, 1888, p. 217.

8. *Charité-Annalen*, XVII., 1892.

9. *Trans. Oph. Soc.*, Vol. VI., p. 551.

10. *Trans. Oph. Soc.*, Vol. VI., p. 556.

1/2 in the squinting eye. After correction of the hyperopic astigmatism, the strabismus disappeared, and after several years the vision of each eye was found normal. During the discussion, Randall and Holt mentioned similar cases.

8. Bourgeois¹¹ reported a number of cases in which vision improved somewhat after operation.

9. Lewuillon¹² reported a case in which vision improved from 1/7 to normal within six weeks after the operation. He also reported cases in which there was less improvement.

10. Panas¹³ reported a case of a man aged thirty who lost the sight of his good eye from neuritis. In two years the sight of the other eye, which was highly amblyopic since childhood, had so much improved that he was able to read fine print.

To these cases, a few of which only are of doubtful value, the following must be added:

11. Simonton¹⁴ reports a case in which a squinting eye with vision —16/40, was improved to 16/16 in three months by the use of glasses.

12. Herrnheiser¹⁵ reported the case of a boy aged eleven, whose fixating eye was injured (traumatic cataract), reducing vision to counting of fingers. Even so, this eye was at first still preferred as the fixating eye. The squinting eye with +2, was at first able to see fingers at one and a half meters; two weeks later at four meters. In three months vision rose to 6/24, and in one year to 6/9.

13. Klein¹⁶ relates two cases, in both of which vision improved from the time that the amblyopic eye was forced into use, in the one case because of loss of the fixating eye through cysticercus and enucleation, and in the second by a foreign body. In both cases a relatively high degree of vision was obtained.

14. Bielschowsky¹⁷ relates a most interesting case. The patient had been examined in Schweigger's clinic and vision = 1/15 recorded. B. found the same vision five years later when the fixating eye was lost by an injury. In two and a half years vision in the

11. *Receuil d'Ophtalm.*, 1893, p. 211.

12. *Annales d'Oculistique*, 1893, p. 26.

13. *Traité d'Ophtalmologie*, Vol. I., p. 758.

14. *Ophthalmic Record*, 1897, p. 400.

15. *Wochenschr. f. Therap u. Hygiene d. Auges*, 1900, No. 41.

16. *Wien. Med. Wochenschr.*, 1900. No. 20.

17. *Graefes Arch. f. Ophthalm*, Vol. L., p. 487.

amblyopic eye gradually increased and finally reached half the normal.

15. The most important reference is to Javal's studies of the improvement in vision in amblyopic eyes through exercise.¹⁸ These studies are the most systematic that have been made, and leave no doubt as to the great improvement that it is possible to obtain by long continued exercise according to Javal's plan.

Besides these cases we may refer to those in which sight is lost in early childhood in consequence of double cataract.

1. Leaving the older cases, I desire to call your attention to the recent publication of Axenfeld¹⁹, who reports a case of a child aged six, which after attending school for a while, became blind and was operated upon for double cataract when seven and a quarter years of age. In the meantime it had completely lost the ability to see and was in the condition of a child born blind, excepting that it re-learned to see more quickly than those who are born blind.

2. Seydel,²⁰ in 1901, reported a case of a girl aged ten who became blind when seven, was neglected, and when operated upon was in the condition of one born blind. Although the optical effect of the operation was good, it required two months until she was able to walk about alone.

3. He also reports a case of a man aged thirty-one whose sight became bad when he was four years old and was lost in his seventh year. After an operation he rapidly learned to see in about three weeks, and his recovery was more complete than in the previous case.

Both Axenfeld and Seydel conclude that a child that can see well up to the sixth or seventh year may completely unlearn how to see. Seydel states that the degree and the persistence of this amblyopia depend upon the mental condition and training.

It is proper that I should here refer to the interesting discussion of the subject in a paper of Dr. Theobald, read before this society in 1886.

To the cases already reported²¹ I desire to add the following: Mr. S., aged seventy-eight, consulted me in Nov. 11th, 1898. As a child between six and seven years of age he was injured in the R. E. with a shoemaker's awl. Traumatic cataract followed and

18. Manuel de Strabisme, Paris, 1896.

19. Monatsblätter f. Augenheilk. 1900. Appendix, p. 29.

20. Monatsblätter f. Augenheilk. 1901. p. 817.

21. The list of cases given above is not complete.

he has never been able to make use of this eye since. The L. E. has been failing for some time. Examination showed constant nystagmus of both eyes with slight divergence of the right. There was a shrunken cataract occupying the entire pupillary space of the R. E. and a minute peripheral corneal scar. The pupil reacted well to light; projection was fair; he could see movements of the hand close to the eye. The L. E. was in an advanced stage of chronic glaucoma, tension somewhat raised, corneal epithelium hazy, pupil slightly dilated, glaucomatous excavation of the optic disc(?). With this eye he could count fingers at seven feet. The inner half of the field was greatly impaired, the defect touching the point of fixation; the outer half was fair.

Fearing the rapid loss of sight in the L. E., and recognizing the dangers of an iridectomy under the circumstances, it was deemed advisable to treat the L. E. with eserine and to attempt to restore vision in the R. E. by removal of the cataract. This operation was done Nov. 28th, 1898, under cocaine. An incision was made with the keratome about two mm. from the upper corneal margin, the cataractous mass removed with the iris forceps and the remnants pressed out with a spoon. The recovery was rapid and unattended by any inflammation, and the clear round pupil admitted of easy examination of the fundus; this was found normal. It was a great disappointment, however, to find that notwithstanding the clear media, the patient saw exceedingly badly. He could not fixate, and at the time of his leaving the hospital, about two weeks after the operation, his vision was only sufficient to enable him to recognize the movements of the hand, and convex lenses made no improvement. On Dec. 21st vision equaled counting fingers at ten feet, and the field of vision was apparently normal.

On June 25th, 1899, he returned, complaining of pain in the temples. The vision of the L. E. had become further reduced, so that he could but count fingers held very near by, and the R. E. saw movements of the hand at the length of the room. The tension of the L. E. was between plus 1 and 2. The pain increasing, an iridectomy was made on July 3rd, 1899. The eye stood the operation well, but the vision did not improve, and salicylate of soda was administered frequently on account of pain.

As the vision of the L. E. had slowly diminished, the R. E. had been used more and more, and September 6th, 1899, the patient informed me that it had improved so much that he believed he was

ready for glasses. Vision with +6DS equaled 3/40; with +15.0 he read 1.5 M.

These glasses were ordered and on Nov. 22d, 1899, vision was found to be 10/40 with the same glass, and he could read fine print. From this time on he began reading the daily paper, the difficulty gradually diminishing. I examined the patient recently (July 2d, 1902) and found that with +6 his vision is 6/15 without difficulty, and with +15.0 he reads 0.5 m. German print fluently. The condition of the eye has not changed otherwise; the pupil is round and freely movable. The vision of the L. E. is reduced to seeing movements of the hand, the optic disc is atrophic without distinct excavation. Tension is normal. I may add that the patient still has some nystagmus, but my impression is that this has diminished. The L. E. is now slightly divergent.

The improvement of the vision of the amblyopic R. E. is marked and beyond question. The patient's vision after the operation was so poor that glasses were not ordered, the impression being that the sight was beyond recovery, and nine months elapsed before decided improvement was noticed. Glasses were then given and the vision increased gradually so that in two months it had reached 10/40, and two and a half years later it was found to equal 16/40.

This case is in some respects unique. In the well known case of V. Graefe vision was immediately restored after removal of a cataract of sixty years' duration. Klein, Silex, and others have reported similar observations. Even those who admit the occurrence of amblyopia from non-use in strabismus and in double cataract in children under six or seven, do not recognize the occurrence of such an amblyopia in unilateral cataract as a result of non-use. It is probable that the cataract was not the sole factor in producing the amblyopia in the case related, but that strabismus played an important part. It is to be noted that vision was not entirely prevented by the cataract for the patient could still see movements of the hands and had fair projection of light. This much is certain that the eye was amblyopic and that it gradually recovered a useful amount of vision when forced into work. The form of amblyopia was that associated with strabismus, the chief characteristic being the loss of the power to fixate. I feel no hesitancy therefore in placing this case with those referred to in the beginning of this paper, as offering another instance of the genuineness of amblyopia from non-use.

Two years ago Silex,²² expressing his surprise that there were still those who looked upon the amblyopia found in strabismus as due to non-use, reviewed the subject in a critical manner.

He first considers the theoretical arguments in favor of amblyopia from non-use, which cannot be proved or disproved and may therefore be neglected. He next takes up the question of the observation of loss of vision through strabismus. As to the case of Schmidt-Rimpler he states that had it occurred in his own practice he would have attributed it to an error in recording. He further argues that at the age of seven years in which the central visual apparatus has been completely formed, it is impossible to lose the faculty of vision. This is disproved by the cases of Axenfeld and Seydel cited above. He does not mention the case of Dr. Risley which I am sure none here will be willing to admit to be due to an error in recording. We cannot agree with his statement that no unquestionable proof has been given, as demanded by Schweigger—that an eye with normal sight has become amblyopic, for we regard both Schmidt-Rimpler's and Risley's cases as such proof, and it must be remembered that the difficulties in the way of making such observations are very great. As to improvement of vision in amblyopic eyes, he takes the same view as Schweigger. Panas's case he throws aside because the patient had never had an opportunity to test the true visual power of the squinting eye. He relates a case of amblyopia (not strabismic) in which glasses improved vision from 1/10 or 1/6 to 2/3 with glasses, but in this case there was neither loss of central vision nor of fixation. Silex's arguments do not disprove the value of the numerous cases cited in which highly amblyopic eyes have been restored to good vision. He overlooks especially the restoration of central vision where there has been loss of fixation. This does not occur in congenital amblyopia no matter how much care is given to the correction of the refractive error. No other hypothesis than the production of amblyopia from non-use will satisfactorily explain the gradual recovery of vision in this class of cases.

It is not necessary at this time to discuss the argument that the amblyopia is not constant in all cases of strabismus. This question can be understood only when we know more of the physiology of vision in strabismus—a subject which through the studies of Biel-schowsky and others is now looming in an entirely new light.

22. Deutsche Med. Wochenschr., 1900, p. 383.

REPORT OF A CASE OF PSEUDO-TORTICOLLIS WITH ABNORMAL ASSOCIATED MOVEMENTS OF HEAD AND EYES.

BY EUGENE RICHARDS LEWIS, M. D.,
DUBUQUE, IOWA.

Having read with much interest the article on "Associated Movements of Head and Eyes" by Posey in the *Journal of the American Medical Association* for November 29th, 1902, in which he reports two cases, I am impelled to report the following case which has been of not a little interest to me. Though I am not able to bring it within any approach to a conclusion, having had the patient under observation for only two months, nevertheless I feel that in connection with Posey's article, data concerning the case may be of value, even in their present incomplete condition; and I hope to be able to keep the patient under observation long enough to be able to give more conclusive details concerning the case at some future time.

This case, which falls under Group 4 of Posey's classification, "Related but not compensatory Movements," has caused me no inconsiderable worry and vexation, both in my work with the patient, and in attempting to arrive at conclusions. I will relate the points of the case.

Alma G., age 8 years. On October 1st, 1902, her mother brought her to me on account of headaches with which she has suffered during the past year. During the past two months, she has been subject to acute exacerbations of a chronic follicular conjunctivitis, and has developed a marked marginal blepharitis.

Parents both living and healthy. Mother has never been ill since childhood, when she had the usual exanthemata. No history of pelvic disorder of any kind, nor of premature labor or miscarriage. Father has had sthenic pneumonia three times within past five years, but otherwise has been in good health. There is no history of rheumatism in the family. Patient is the oldest of four children. One brother and two sisters, strong and well nourished. None of the family have ever had occasion to consult an oculist, nor have any of them been subject to nervous disorders.

Patient had "lung fever" at 4 months, "intermittent fever" between ages of 3 and 4 years, measles, chicken pox, and typhoid fever about 15 months ago, after which she became particularly strong and gained much flesh, weighing at one time 80 pounds. Last winter

(1901-2) she suffered from repeated "colds," coughed much, became a mouth-breather, and developed a general catarrhal condition of the upper respiratory tract. She had begun going to the public school at the age of 6 years, and had progressed rapidly in her studies, being well advanced in school and particularly fond of reading. During the winter in which she developed the above mentioned catarrhal disorders she had frequent headaches which were attributed to her "colds." It was noticed soon after this time that she seemed to have some little difficulty in her reading, and her mother attributed this to the effect of her frequent headaches on her sight. She had always been very ambitious in her school work, and had vied with her schoolmates in attempts to be at the head of her class, but now, to her extreme chagrin and dismay, she found herself unable to keep up in the struggle for first place; she lost her standing, and her teacher, who was keenly interested in her, began to consult her parents concerning an unaccountable change which she noticed in the patient who had until this term been one of her brightest scholars. She found her becoming inattentive and dull of comprehension, where formerly she had been alert and quick to perceive—in fine—she described a typical aprosexia. Formerly robust and chubby, she began to grow thin, irritable and extremely nervous. Her weight fell to 63 pounds.

With the summer vacation, however, her condition improved, her headaches became less frequent, and she was less nervous. She increased in weight to 70 pounds. This improvement was cut short by the beginning again of her school work. Her headaches returned and there appeared redness of the lid margins, and moderate lachrymation, which aggravated the condition of the lid margins because of the frequent use of the handkerchief to wipe away the tears which accumulated. Her nervousness increased, and in this condition she was brought to me for relief.

At the first examination my attention was attracted to the peculiar position and movements of the head and eyes. Her head was held in a depressed position and at a tilt downwards and to the right, so that the eyes in looking straight ahead, were directed upwards and to the left, the upper lids covering the irides well down to the pupillary margins. On directing her attention to the test letters, a slight lateral swaying of the head was noticed—slow and rhythmic, from side to side. On being told to hold her head still she would do so for a while, but soon the swaying would again appear and it was evident that this was a part of her habit of scrutiny, at least for

distant observation. Her whole appearance was one of mingled bashfulness and worry. Repeatedly I told her to hold her head straight and still, whereupon the eyes would assume their proper positions in the orbits, only to return to their former position as her inattention allowed the depression of her head to return. The swaying movements of the head were noticed only at such times as she was scrutinizing. At other times her head, though still depressed, remained still. There was no stiffness of any of the cervical muscles to account for the malposition and I presumed it to have originated solely in habit. The associated eye movements were apparently normal,

but I found a distance phoria of $\frac{5m.}{5^{\circ}-6\frac{1}{2}^{\circ} \text{ eso; } 2^{\circ}-3\frac{1}{2}^{\circ} \text{ r. h.}}$ and a near phoria of $\frac{.40 m.}{2^{\circ}-3^{\circ} \text{ e.s.o; } 2^{\circ}-3^{\circ} \text{ r. h.}}$ differing between these

limits at successive examinations. In testing her near vision, and her range of accommodation the same rhythmic swaying seen in distance scrutiny was noticed. She could stop this at will, but with relaxation of vigilance in her control of these movements they would

reappear. $\sqrt{5/viiss??} \parallel \text{Ophthalmometer} = 2.50 \text{ } 100^{\circ} + 3.00 \parallel \text{to } 0. =$
 $\sqrt{5/xxx} \parallel = 2.50 \text{ } 100^{\circ} \text{ Punctumeter} + 3.50 \parallel \text{to } +.25 =$

$-.75 \text{ } \subset + 1.50 \text{ } 90^{\circ} = 5/viiss \parallel$
 manifest— $.75 \text{ } \subset + 2.00 \text{ } 100^{\circ} = 5/xv +$ Ophthalmoscopic examination was difficult because of smallness of pupils and restlessness of patient. I therefore used homatropin, finding fundus negative except for general hyperaemia; disc somewhat pinker than normal. (Patient is decided brunette.) Under homatropin

$\sqrt{5/xv??} = 2.75.100^{\circ} + 3.50 \parallel$
 $\sqrt{5/lx?} = \text{Ophthalmometer} = 2.87.110^{\circ} \text{ Punctumeter} + 3.75 \parallel$

to $+.50 =$
 to $+.75 =$ phoria $\frac{5. m.}{5^{\circ} \text{ eso; } 3^{\circ} \text{ r. h.}}$ ' $\frac{.40 m.}{3^{\circ} \text{ eso; } 3^{\circ} \text{ r. h.}}$

I took her out of school, ordered the use of Seiler's solution nasal douche for nasopharyngeal condition, and atropin was instilled for 10 days, during which time I applied silver nitrate and protargol alternately to the lids. She used Ungt. Hydrarg. Oxid. Flav., and chloretone adrenalin collyrium at home in addition to this treatment for the lids, and also began a course of the glycerophosphates of lime and soda. At the end of 10 days the lids were well and the nasopharyngeal condition somewhat improved. Just at this time, however, she contracted a "cold" which delayed her progress for a few days.

During the time she was under the influence of the cycloplegic, notwithstanding daily attempts to do so, I was unable to bring her

vision above $5/\sqrt{11.5}$. Skiascopic revision of her acceptance at the test case indicated a higher degree of hyperopic astigmatism than I could get her to accept. (I put this down as a failure in skiascopy on my part in spite of my best efforts to obtain a perfect shadow movement.) She was finally allowed to come out of her cycloplegia. During all this time the pseudo-torticollis and lateral swaying of the head remained just as I have described it. With fully returned accommodation and lids in good condition, I again placed her at the test case. She frequently declared she could see more comfortably and *more clearly* with her head in the habitual position, and with the test letters, subjective provings of this claim of clearer vision seemed to bear out her testimony as to this fact. Furthermore, when her head was depressed as described, her esophoria was $1^\circ - 1\frac{1}{2}^\circ$ less for distance, than when her head was held upright. The measurements of the muscle balance were made with considerable difficulty, as it was only with the most obvious restraint on the part of the patient that the head was prevented from moving with its accustomed lateral sway. This, however, she was able to prevent, by effort of control.

I now ordered $+ .75 = + 2.00$ at 110° for constant wear, and so
 $+ .75 = + 2.00$ at 110°

tilted the lenses that she would be looking directly across the upper rim of the spectacles if she persisted in holding her head in the habitual position of depression.

I have advised operation for relief of the nasopharyngeal and nasal obstructions, to which the parents have consented, but which has not yet been done. As soon as she will accept a stronger sphere I shall change her lenses, and I anticipate finding a material change for the better in her muscular imbalance as the result of developing greater tolerance of spheric correction.

Though this case exhibits only insignificant head movements, no lack of binocular single vision, and no nystagmus proper, it resembles those of Posey in other respects, and I think it may be found of interest, considered in connection with his cases.

1110 MAIN STREET, DUBUQUE, IOWA.

TOXIC AMBLYOPIA FROM OIL OF WINTERGREEN.

BY WM. L. BAUM, M. D.,

CHICAGO.

A 28-year-old traveling salesman, suffering from purulent gonorrhea of two weeks' duration was suddenly seized with severe

pain in the right knee joint. The joint was somewhat swollen and very sensitive; the patient was extremely restless and thirsty; temperature 101.2° . Cold compresses were applied to the joint and oil of wintergreen in capsules containing each ten minims was prescribed. Two capsules were to be taken every two hours. Two days later (July 12th) he complained of headache, ringing in the ears, dizziness and *especially of yellow vision*. He did not see well, and was unable to read (temperature was normal). Oil of wintergreen was discontinued. The color perception became normal about the fifth day. He had taken in all 36 capsules (about 24 c. c. of the oil) in 48 hours.

ONE HUNDRED AND FIFTY MAGNET OPERATIONS.

BY WILLIAM A. FISHER, M. D.

Professor of Ophthalmology in the Chicago Eye, Ear, Nose and Throat College, Chicago, Ill.
Illustrated.

The subject of metallic foreign bodies in the eyeball and their treatment has been presented so often by some of our best clinicians that I do not expect to add much that is new but a general discussion of the subject may help us to treat future cases more intelligently. So much has been written regarding the different magnets in use for extracting metals that are attracted by a magnet that I will not go into the detail of their construction. Moreover, I will not touch on magnets, other than the giant magnet as I scarcely ever use the small one, although I am aware that a foreign body in the anterior chamber can be readily removed with any magnet. In a former article on magnet operating I recommended the giant magnet to draw the metal into the anterior chamber and its removal from the anterior chamber with the Hirschburg magnet. I now see no use of the delay and worry to an excited patient for changing magnets, because I believe that the giant magnet is quite as convenient for removing the metal from the anterior chamber as the small magnet.

I will present five years' work with the giant magnet and hope to have a free discussion by many members of this society to some of whom I have given assistance in magnet cases. Before the advent of the giant magnet, a scleral opening and the introduction of an instrument into the vitreous were imperative. A foreign body be-

Read before the Chicago Ophthalmological and Otolological Society.

hind the lens is quite serious and destructive to the eye in so many cases that we shudder to think of putting an instrument, however delicate, into the vitreous to remove it. Nothing is more agreeable to the surgeon than the appearance of a piece of metal in the anterior chamber after he has applied the magnet to the cornea. He knows full well that no such thing could have happened without the giant magnet and that the chances of saving the eye ball are poor, when the foreign body remains in it. Metal in the anterior chamber is easily removed with any magnet.

When should the operation be performed?

No delay should be tolerated when a foreign body has entered the eyeball. If the object be iron or steel the magnet should be applied as soon as the patient can be prepared for the operation. The sideroscope may be employed, as its use causes no delay. An x-ray picture only causes delay and this favors infection. We can remove the metal long before it is possible to have the x-ray done. X-ray pictures are only of use in old cases, for recent ones the loss of time is too great. Use the magnet in a proper manner with a negative result in a recent injury, and even if later the foreign body is located with an x-ray picture, what more can be done? A negative x-ray picture after an unsuccessful magnet operation gives us double assurance that a foreign body is not present.

SIGHTLESS AND GLASS EYES.

Sightless, quiet eyes that appear perfectly normal are preferable to glass eyes. After enucleation the use of an artificial eye often militates against the chances of obtaining employment and lessens the earning capacity. Magnus and Wurdemann estimate the loss of an eye in mechanics at 27 to 30 per cent during the first year after the accident and 18 to 20 per cent during the subsequent period. Sightless eyes are often not recognized.

METHOD OF OPERATING.

When a foreign body is suspected and the lens has become opaque, no difference of opinion exists as to the method of extracting. We apply the tip of the magnet to the center of the cocaineized cornea, increase the current slowly until we have the full force unless the foreign body appears with a less amount. If the foreign body does not appear, we turn the current off and approach the cornea again, this time placing the tip of the magnet in contact with the cornea near the periphery. The current is gradually turned on and we are usually rewarded by seeing a bulging of the iris. The current is then

quickly broken and the magnet position changed to make the metal pass through the pupil into the anterior chamber. The current being once more slowly turned on, we see the foreign body in the anterior chamber. Having made an opening in the cornea in a convenient place with a keratome or Graefe knife, we apply the magnet to the opening and turn on the current slowly until the metal adheres to the magnet and the operation is finished. Such a case is an ideal one and also one of the most common. I am really surprised if such a case does not terminate in this manner. If the foreign body does not appear on the second application of the current, it is sometimes necessary to turn on the full current and make and break the current several times to dislodge the foreign body. If the metal has entered the eye back of the lens, some operators prefer an opening in the sclera and removal at that point. The dangers of a scleral opening are great, yet the danger of wounding the lens is also to be considered, if we attempt to draw the metal up to the lens around and through the zonula into the anterior chamber. Not being able to estimate the size of the metal, we must take some chances. If the metal be very large, the injury to the lens is not of much importance, for large pieces usually destroy the eye. If the piece is small it is possible to draw it around the lens through the zonula into the anterior chamber without wounding the lens. Such an operation is ideal and gratifying. I am of the opinion that all foreign bodies should be extracted through the anterior chamber, although a foreign body that has passed through the sclera back of the lens suggests removal through the enlarged original wound. I wish to show you this evening a successful case that was operated upon in this manner, but I am not as confident of a final good result as I should have been had I removed it through the cornea.

COURSE OF METAL THAT IS ATTRACTED.

Some operators object to the giant magnet when the metal is a long piece lying crosswise in the vitreous, fearing the great strength of the magnet might draw the piece forcibly into the delicate structure

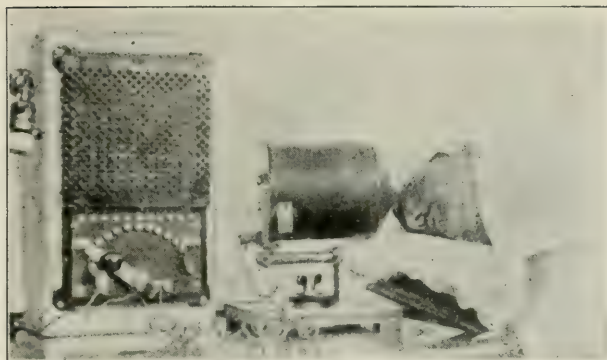


Fig. 1

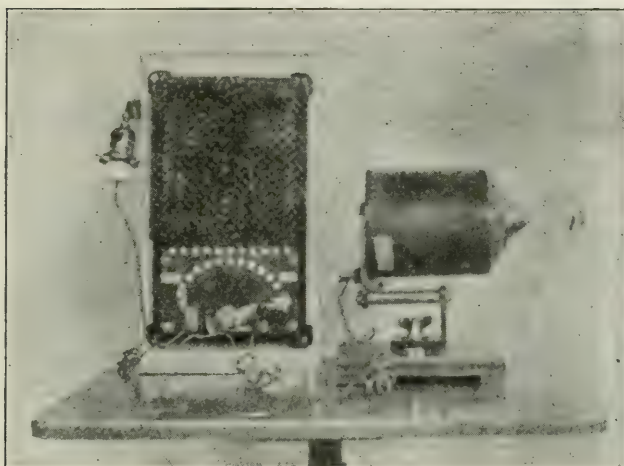


Fig. 2

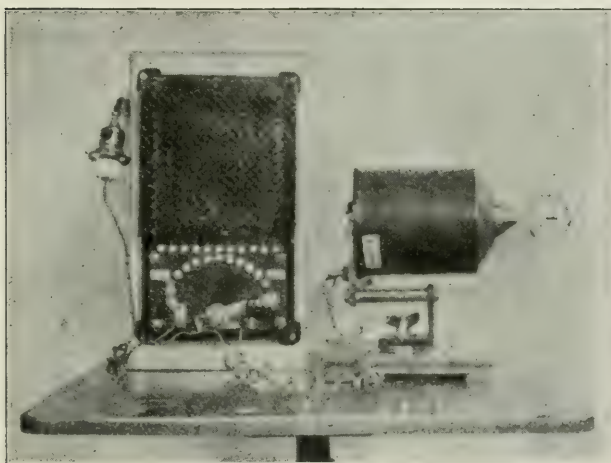


Fig. 3

of the eye. This fear is groundless, for we do not require any such strength. We only use enough current to attract the foreign body. If the foreign body is in the vitreous and laying crosswise (Fig. 1) it will not be brought broadside through the vitreous but turn and approach the magnet lengthwise. (Fig. 2.)

INSTRUMENTS FOR OPERATING.

In the operating room of the Chicago Eye, Ear, Nose and Throat College we have a giant magnet, Hirschburg magnet and a sideroscope. We also have the instruments for operating "except the cutting instruments" made non-magnetic. It is often desirable to use a speculum and forceps and these must be non-magnetic.

TWO GREAT CLASSES.

Magnet operations may be divided into two great classes; first, for eyes that positively contain a foreign body and second, those in which we have every assurance of the presence of a foreign body but the magnet gives us a negative result. It is not uncommon for a patient to give us an exact history of being struck in the eye with a piece of metal and on examination we find a wound in the cornea, a corresponding one in the iris, an opaque lens and minus tension. What more could we ask to make a diagnosis of a foreign body in the eye? Such histories may be misleading. We often apply the giant magnet to such cases with a negative result. If it were not for the giant magnet we should be forced in many of these cases to enucleate rather than subject the patient to a possible sympathetic inflammation. We do not think of enucleating if assured that there is no foreign body in the eye. To illustrate this—a case was brought to the Chicago Eye, Ear, Nose & Throat College last summer by a competent oculist of large clinical experience, with a history such as I have just related. The Doctor was consulted just as he was getting ready to spend his vacation in the northern lakes and he brought the patient to my clinic. Being in a hurry he left him for me to operate upon and return to his associate for treatment. The case seemed so clear that the Doctor explained the injury to my class and told them what

a choice case it was for the magnet. He said one could really see the black metal but the black spot proved to be only an opening in the iris. I tried the magnet in all positions with a negative result. The Doctor wrote me that the patient is a railroad man and has gone back to work and passed out of his hands. The negative result of the magnet is not positive proof that there is an absence of metal in the eye, but I have so many cases of this kind that I am willing to affirm that there is no metal in the eye when I cannot find it with the giant magnet and have a negative x-ray picture.

STRENGTH OF GIANT MAGNET.

Some operators have criticised the magnet on account of its strength. I am sure this is only a fancy, as the giant magnet with a properly constructed rheostat can be made weaker than a Hirschburg. It is often desirable to have a very strong magnet and I never worry about the strength when I can regulate it.

CHOICE OF ANESTHETIC.

The patient's general behavior will guide us in the choice of an anesthetic. In most of the cases a 4 per cent solution of cocaine will be sufficient. The patient does not experience much pain from a magnet operation and can be of much assistance to us by moving his eye in the direction we desire. In order that this report may not be misconstrued, I wish to say that I have included the cases that gave me a clear history of having metal in the eye and the magnet gave a negative result.

AUTHORS' STATISTICS.

Total number of cases one hundred and fifty.

Symptoms of metal in eye but negative result

 with magnet49 Cases

Metal removed97 "

Metal found in eyeball after enucleation—"magnet

 negative" 4 "

RESULTS.

Good vision	96 Cases
Sightless eyes—"external appearance good".....	34 "
Enucleations	20 "

The magnet failed to extract the metal in only four cases in which the metal was found after enucleating, but I believe that it was not so much the fault of the magnet in not extracting the metal from these cases as it was my inexperience in handling the instrument. To do the magnet justice very large pieces of metal are usually fatal to the eye, no matter how they are extracted. Before closing, I wish to show you three successful cases, illustrating the three classes of cases we find in such operations.

First, Mr. K., age 34, came to me Oct. 22, 1902, an hour after receiving a piece of metal in the anterior chamber of right eye. The metal was easily removed and his vision with correction is 20/30 in each eye. I am of the opinion that 20/30 is as good vision as he enjoyed before the injury.

Second, Otto P., age 6 (referred to me Sept. 14, 1901, by Dr. Fuller), while playing with two hammers a piece of metal flew from one of the hammers and struck him in the right eye passing through the cornea, inner part of iris and lens. The metal was drawn into the anterior chamber and removed without difficulty. You will see that the eye looks perfect except for an opaque capsule. His perception and projection are perfect and good vision may be expected.

Third, Mr. W., age 25, referred to me Aug. 31, 1902, by Dr. Stewart, of Kewanee, Ill. When I saw him the next morning after his accident, I found a wound in the sclera back of the clear lens of left eye. He gave me a perfect history of being struck in the eye with a piece of metal. There was some blood in the vitreous which made it impossible to locate the foreign body. After cocainizing the eye the magnet was brought in contact with the wound, very little current being used to demonstrate the presence of a piece of metal. An opening was made in the conjunctiva exposing the wound in the sclera and held apart by small non-magnetic retractors. The scleral wound was now made larger and the metal removed without difficulty.

The conjunctiva was stitched over the scleral opening and the patient was put to bed. He was discharged from the hospital in 9 days without any irritation. His vision is 20/60.

103 STATE STREET.

The Metropolitan Asylums Board (London) reports as in process of construction, two ophthalmic schools. These schools are for the education of Poor-law children, who are suffering from ophthalmia. The object of separate education is, of course, the prevention of infection of other children. Mr. Treacher Collins has been appointed to supervise the medical administration of these schools.

The surgeons of the New Orleans Eye, Ear, Nose and Throat Hospital have noted the great number of patients entering the institution from the country around New Orleans suffering from partial or total blindness. An investigation has disclosed the fact that a cheap antiseptic, containing a large amount of wood alcohol, has been used throughout Louisiana. The city chemist found as much as 30 per cent of methyl alcohol in some of these specimens, rendering them totally unfit for internal administration. As methyl alcohol, when taken internally, acts directly on the optic nerve, the majority of the persons affected will not fully recover their eyesight.—*Philadelphia Medical Journal*.

At a meeting of the directors of the Manhattan Eye and Ear Hospital, held December 10th, it was decided to begin as soon as practicable the construction of a new hospital building. The present hospital has proved quite inadequate for the increasing demands upon it, and the proposed new building will contain from 125 to 150 beds, as well as be more perfectly equipped for the work of the institution. At this meeting it was announced that an offer of \$50,000 had been received from a gentleman, on condition that \$150,000 in addition is raised by the first of January, 1904. The gift is conditional, also, on the hospital being removed from its present site and the establishment of a special ward for children, which shall perpetuate the name of the donor.

THE OPHTHALMIC RECORD

A MONTHLY REVIEW OF THE PROGRESS
OF OPHTHALMOLOGY.

VOLUME XII, No. 1. CHICAGO, JANUARY, 1903.

NEW SERIES.

EDITORIAL.

• THE TERM SKIASCOPY.

In the end the supreme authority in determining the meaning of a word, or the proper word to express a certain idea, is usage. The usage may be local, establishing a dialect, national, fixing the word of one language, or world wide. But within its sphere, popular usage finally becomes supreme. In general that will be regarded as the better word which has the wider use to support it.

In view of these facts, it seems worth while to call attention to the use of the term "skiascopy." It is not so old a word as retinoscopy; but neither is retinoscopy so old as keratoscopy, and keratoscopy had the advantage of being the suggestion of the originator of the test. Keratoscopy was given up because it was inappropriate and misleading. The *Index Medicus* placed it under the heading, diseases of the cornea, a very reasonable position for the word, although an entirely inappropriate classification for the thing signified. The procedure in question is not a method of examining the cornea. Neither is it a method of examining the retina, except that as an accident the refraction of the retina approximates the refraction of the surface from which the light reflex is obtained.

It was because of this inappropriateness of retinoscopy, and the tendency even then observable in the literature of the subject toward the general use of the more reasonable term, that the writer, some years ago, gave up its use, and began to employ skiascopy in its place. A recent examination of the literature of the subject shows that these reasons have had equal weight with most others who have written on the subject.

Outside of those who write in English and, indeed, outside of a small group of American writers, the term skiascopy has come

to be almost universally employed. In examining the French and German literature of the last two years, with references also to Italian and Spanish, it is found that the term skiascopy has been used by seventeen writers; while the term retinoscopy occurs but three times, and then only in the quoted titles of American articles.

This is quite a striking fact in regard to the French literature, since both retinoscopy and skiascopy were proposed by French writers. But it is still more striking that in Hirschberg's 450 page catalogue of his library, issued last year, the term retinoscopy does not occur. Of the twenty-two monographs and reprints there catalogued, eighteen employ the term skiascopy or skiascopie, and four use shadow-test, "shattenprobe," or an equivalent.

In spite of these facts those who speak and write will probably continue to use such language or dialect as they please. But to any one who does some reading outside of his mother tongue, it seems a matter for regret that local or national ignorance, or self-sufficiency, or the mere desire to be peculiar, puts obstacles in the way of a universal language of science.

TOXICITY OF METHYL ALCOHOL.

In the introductory paragraph of a very comprehensive work on the Toxicity of Methyl Alcohol (The Johns Hopkins Hospital Bulletin, 1902, XIII., p. 213) Dr. Reid Hunt, associate professor of pharmacology in the Johns Hopkins University, pays a deserved compliment to the workers in our specialty. He calls attention to the increase in the number of cases of poisoning by methyl alcohol, and the fact that many deaths have resulted from the use of preparations containing it; he says that there seems to be much ignorance of the fact, even among physicians, that the substitution of methyl for ethyl alcohol in any preparation intended for internal use would inevitably be accompanied by the greatest danger; and continuing, he states that very little has been published recently concerning the general pathological action of methyl alcohol, "while much has been written concerning the action of methyl alcohol upon the eye, and considerable experimental work has been done upon this subject (notably by Friedenwald and Birch-Hirschfeld)."

In this article, which is of particular interest to the ophthalmologist, Hunt considers the subject in its two forms, acute and chronic poisoning. In speaking of acute poisoning, he calls attention to the similarity in general of the symptoms caused by acute poisoning with methyl, ethyl and the other alcohols of this series,

and he points out the fact that in acute poisoning the action of methyl alcohol differs from that of ethyl alcohol chiefly in that the symptoms caused by the former are produced more slowly and the duration of the intoxication is more prolonged.

On the question of the relative toxicity of methyl and ethyl alcohols, i. e., the relative quantities which, when administered in a single dose to an animal, will cause death in a short time, he reports the findings of other investigators (Dujardin-Beaumetz and Audigé, Joffroy and Serveaux, Baer) and the results of experiments on animals by himself. His experiments show that in the lower animals death is caused more rapidly by one or two large doses of ethyl than by corresponding amounts of methyl alcohol. But he says that the question as to which of these alcohols is the more poisonous to man in acute cases is a very difficult one to answer. Among the complications that arise in answering this question is the fact, as he points out, that a fairly large percentage of the human race (at least, the part of it inhabiting America and Europe) have acquired a certain degree of tolerance to ethyl but not to methyl alcohol—a tolerance, which almost always exists, in those who are exposed to the dangers of methyl alcohol.

In closing his discussion of the subject of acute poisoning by methyl alcohol, Hunt points out the fact that some organs are much more susceptible to its injurious action than to that of ethyl alcohol. Such is the case in the eye; all of our experience shows that methyl alcohol is capable of injuring the eye to a vastly greater extent than is ethyl alcohol.

In his consideration of the subject of chronic poisoning with wood alcohol, Hunt says that the fact that the effects of a single dose of methyl alcohol are long continued suggests that it would be an especially dangerous substance to give at short intervals for any length of time—its cumulative action.

He again compares the effects of methyl and ethyl alcohols. In chronic and subacute poisoning by these alcohols the striking point, in contrast to their effects when the poisoning is acute, is the dissimilarity of their action. Hunt speaks of the experiments of other investigators and particularly those of Birch-Hirschfeld, who experienced difficulty in keeping animals alive for even short periods when small doses of methyl alcohol were administered at short intervals—we all know that one form of animal (man) takes large quantities of grain alcohol at frequent intervals for years without fatal results.

In the "*Fate of methyl alcohol in the body*" we meet a fact of almost as much interest as is that of its selective action on the retina. The administration of it leads to the formation within the body of a markedly poisonous acid (formic acid) and, possibly, formaldehyde. Wood alcohol is but partially oxidized in the body. Hunt says that this explanation is found in the work of Pohl. Also, Pohl's work shows that probably either methyl alcohol itself or some derivative of it is retained in the body and is then slowly converted into formic acid.

The fact that when methyl alcohol is given to an animal or a man a considerable quantity of formic acid can always be found in the urine leads Hunt to the statement that it would be interesting to determine whether any formic acid or methyl alcohol is excreted in the tears.

A part of one of the closing paragraphs of this most interesting article is as follows: "Pohl showed that the administration of sodium bisulphate simultaneously with methyl alcohol caused a great increase in the excretion of formic acid in the urine; it would be an interesting problem to determine whether this salt would be of any therapeutic value in cases of poisoning by methyl alcohol." This suggestion may fall on barren ground in other fields; in that of ophthalmology we venture the opinion that it will be thoroughly investigated.

BROWN PUSEY.

Biographic Clinics.—Speaking of visual adjustment, the New York critics are having something to say of a forthcoming book by Dr. George M. Gould, who advances a brand new idea, viz., that DeQuincey, Darwin, Huxley, Carlyle and Browning, all suffering from a malady which baffled their physicians, were really victims of "eye strain." He declares that a competent oculist could have transformed their lives. Dr. Gould subjected the lives and letters of those great authors to the closest medical examination, and thus deduces his conclusion. He calls his book "Biographic Clinics." "The question is, Would the world, if it could, have the lives of those men transformed? Would Carlyle be Carlyle at all without that bad stomach or 'eye strain'? Where would be DeQuincey's immortality without his malady and his opium? As for Darwin and Huxley and Browning, they may have had eye strain, but what far-seeing vision in the realms of science and poetry did they bequeath to humanity!"—Emel Jay, in *The Chicago Evening Post*, Saturday, Dec. 20th, 1902.

REPORTS OF SOCIETIES.

SOCIETY OF OPHTHALMOLOGISTS AND OTOLOGISTS, OF WASHINGTON, D. C.

REPORTED BY DR. W. N. SUTER, SECRETARY.

October 17th, 1902.

Dr. Polkinhorn exhibited an ingenious contrivance for varying the test letters by means of a string running from the test card to the seat of the operator. His device differed from those in common use in that it made a change of letters only in the normal vision line, which he considered an advantage over the method of changing the entire card.

The essay on the eye, entitled Operations for the Wearing of an Artificial Eye, was read by Dr. Polkinhorn. After referring to the cosmetic disadvantages of simple enucleation, he described the various procedures which have been practiced to effect greater fullness of the orbit and better movement of the artificial eye than results from simple enucleation. He spoke of the Mules operation, the sponge grafting operation of Dr. Belt, and the modified Mules operation, in which a globe is inserted into Tenon's capsule. The reader said that in his association with Dr. Webster Fox, of Philadelphia, he had had excellent opportunities to observe the results gained from this kind of treatment. He said Dr. Fox had in his recent operations substituted a gold ball for the glass ball formerly used, thus avoiding the danger of subsequent breakage. Dr. Polkinhorn said that he had inserted the glass ball in six instances; in three of these the ball had been expelled, in one from the child removing the bandages and rubbing the eye, in the second probably from debilitated physical condition, and in the third without any discoverable cause. In the remaining three cases the result was good, the cosmetic effect being greatly better than that afforded by simple enucleation. He thought that implantation of a globe should be done, if possible, whenever the cosmetic consideration was sufficient to justify the prolonged healing process.

In the discussion Dr. Belt said that he had not done any sponge grafting operations recently, but that this was not because he had lost faith in the operation; it was because he had not had patients who were willing to undergo the more severe operation. He thought the patients should have the choice in the matter, and it usually

resulted in their preferring the more rapid method. In several of the grafting operations which he had been able to watch through a number of years the result still remained excellent. He thought that with more careful selection of cases than he had at first exercised, a greater proportion of successes could be obtained. He thought that the idea of the modified Mules operation—the plan of inserting an artificial body into Tenon's capsule was original with himself.

Dr. Butler said that he had formerly practiced Mules operation and that he still regarded the modified operation as admissible and advisable in certain cases, but that these cases were in small proportion to those calling for simple enucleation, because of the length of time required for healing. He thought the introduction of the *refor'm eye* of Snellen still further reduced the number of cases for globe implantation. He said that much could also be done by exercising care to secure a good stump, as by suturing the recti muscles to the conjunctiva.

Dr. Burnett said he thought a better stump might be obtained by allowing a blood-clot to remain in the capsule, as had been practiced in mastoid operations, some operators claiming that the sinking of the scar was materially reduced by this means.

Dr. Polkinhorn in concluding the discussion said he thought the blood-clot advised by Dr. Burnett would be rapidly absorbed without becoming organized, just as occurs after the operation for chalazion.

November 21st, 1902. Dr. Burnett reported a case of sympathetic ophthalmia occurring in a man 39 years of age, from an injury received 33 years previous to the outbreak of sympathetic disease. When 10 years of age the patient had had the lens removed, this having been rendered cataractous by the original injury. When first seen by Dr. Burnett at Emergency Hospital, the sympathetic eye exhibited the appearance of typical cyclitis, while the injured eye presented almost no injection. This was on Saturday. The patient did not consent to enucleation until the following Tuesday, by which time the injection of the injured eye had very much increased. The condition had improved since the enucleation, but it was too early to give a definite prognosis.

Dr. Butler, referring to Dr. Burnett's suggestion at the previous meeting, said that he had recently had occasion to enucleate an eye and that he had allowed a blood-clot to remain in Tenon's capsule and he thought the fullness and motility were better than he

usually obtained after simple enucleation. Dr. Wilmer said he always allowed a clot to form in the capsule before tightening the sutures. He thought the clot was quickly absorbed, but that it did a certain amount of good by temporarily holding the parts in position.

Dr. Belt reported that the bruit in the case of pulsating exophthalmos, which he had exhibited to the Society four years ago, had suddenly disappeared in the last fortnight without any demonstrable reason.

Dr. Fox exhibited some solid bi-focal glasses, and gave some interesting history in regard to the manufacture of these lenses. He presented a copy of the patent office record showing that an application for a patent made in 1885 had been refused on the ground that a patent for the same process had been granted in 1836.

In the discussion which followed, the consensus of opinion of the members was that the disadvantages of solid bi-focal lenses are so great as to preclude their usefulness except in a few special cases.

SECTION ON OPHTHALMOLOGY—COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting, December 16, 1902. Dr. William Thomson, Chairman, presiding.

Dr. Edward A. Shumway exhibited a woman, aged 42, with *Persistent Hyaloid Artery* of the left eye. The lens was clear, and the artery extended as an opaque white cord, from its posterior capsule, slightly to the nasal side, to a point just above the entrance of the optic nerve, where it apparently joined a branch of the arteria centralis retinae. The cord moved freely with the movements of the eye, and no trace of a separate canal of Cloquet was visible. The vitreous was free from other opacities. Surrounding the optic papilla there were extensive areas of retino-choroidal atrophy, with dense masses of pigment, in the macular region and at the point above the nerve entrance, where the opaque cord was attached. The fellow-eye also showed retino-choroidal atrophy, but no remnant of the hyaloid artery. V = R.E., 5/60; L.E., 5/22. Everbusch divided these cases into two classes: (1) True blood-carrying or obliterated arteria hyaloideae; and (2) membranous opacities which correspond in position to the canal of Cloquet, but which have arisen by post-embryonal changes in the central lymph-channel of the vitreous, due often to

myopia. Dr. Shumway thought that the deposit in the canal of Cloquet of inflammatory products, in connection with a prenatal or postnatal choroiditis, as in the present case, was a theoretic possibility, although von Hippel says that no proof of such an origin in a case described as persistent hyaloid artery has ever been advanced. In the same connection Dr. Shumway exhibited histological preparations, showing the hyaloid artery in the human fetal eye at the twenty-second week, in which the artery was at its fullest development; and at the end of the eighth month, in which the artery had disappeared, except for a short outgrowth from the nerve, the central cavity of which was in direct connection with the central artery of the retina.

Dr. Harold G. Goldberg reported (by invitation) a case of *Retinal Glioma* in a child 2½ years old. The disease existed for 7 months before the parents would consent to enucleation, the orbit then being extensively involved. Histological examination showed a "glioma endophytum" entirely filling the vitreous chamber, dislocating the lens forward, the posterior capsule of which was ruptured and the lens substance invaded; "gliofibroma" involving the posterior portion of the sclera; complete replacement of normal nerve tissue by glioma elements; and invasion of the nerve-sheaths and orbit, and "rosette" formations.

Dr. H. F. Hansell related the *Subsequent History of a Case of Sympathectomy for Chronic Inflammatory Glaucoma*. The interesting and instructive feature of the case was that, notwithstanding the removal of the superior cervical ganglion on each side, the patient, a young man, had had subsequently at least two attacks of acute glaucoma attended with violent pain and complete blindness. Recovery of vision equal to that before the attacks followed the use of eserine and of paracentesis of the cornea. Dr. Hansell quoted the conclusions of several writers on the subject who had gathered the published accounts of results of the operation, but he could not assent to the reasons or arguments that had been brought forward for justifying the excision of the ganglion. The evidence of this one case in which the operation not only did not restore any part of the lost vision, but failed to prevent acute onsets of glaucoma, was a stronger argument against the procedure than all the reports made within a few weeks after operation, claiming that the operation was beneficial. He advocated no departure from the tried remedies, eserine and iridectomy, in hopeful cases, and preferred

enucleation for painful, sightless, glaucomatous eyes beyond the reach of eserine and iridectomy.

Dr. G. E. de Schweinitz described the history and ophthalmoscopic appearances of a case of *Thrombosis of the Upper Temporal Branch of the Superior Division of the Central Artery of the Retina* in a girl aged 15, who was examined two weeks after the first symptoms of this condition became manifest. The only etiological factor which could be discovered was a pronounced simple anemia. The lesions were these:

From the margin of the nerve head to a point 1 disc's diameter distant the upper temporal branch of the superior division of the central artery of the right eye was converted into a white cord in the center of which a faint red line, representing apparently a much diminished blood stream, could be detected. Beyond this point the occluded vessel was nearly hidden by a yellowish-white exudate, somewhat larger than the surface of the papilla and faintly tinged with pigment. Just beyond it there was a small flame-like hemorrhage, and another one above the superior temporal vein. The ramifications of the vessel beyond the area of exudate were much broken and interrupted. The surface of the disc, particularly its nasal margins, was cloudy with edema. At a number of places the retinal veins were somewhat compressed by overlying arteries, indicating increased density of the arterial wall. Central vision was 6/9 and the field of vision obliterated in its lower and inner quadrant; elsewhere it was normal.

After two months of treatment central vision rose to 6/5, but the field of vision remained unchanged. The edematous condition of the nerve head had disappeared, the occluded vessel in its entire distribution had been converted into a white cord, and the area of exudate had become absorbed, leaving a region of atrophy fringed with pigment, exposing the sclera crossed by flat choroidal vessels and resembling somewhat an extra-papillary coloboma.

Dr. de Schweinitz thought that the case could be explained by endarteritic changes beginning probably in the inner coat of the retinal vessels most manifest at some point, and that, inasmuch as the usual constitutional causes of such changes were not in evidence, it was possible only to say that they depended upon an undiscovered ancestral or personal nutritional disturbance. Further, the state of affairs could be explained by alteration in the blood pressure and the composition of the blood itself, or rather, by a high grade of simple anemia which in the presence of fatty degeneration of the

intima or other alteration in the vessel coat might induce thrombosis. There was a vague history of a faint blow upon the eye prior to the disturbance of vision, and this might be regarded as an exciting cause. The paper was illustrated with water colors by Miss Margaretta Washington.

Discussion.—Dr. Hansell referred to an instance of transient thrombosis of one of the main branches of the central artery in a young, well-nourished woman, whom he had examined with Dr. Thorington. The vessel beyond the plug appeared as a narrow white cord, in the midst of a sharply outlined area of marked edema of the retina, but with no hemorrhages. Before entering the hospital for treatment she went to her home, but upon her return a few hours later, it was found that the obstruction in the artery had disappeared, although the retinal edema continued. Dr. Zentmayer stated that he had recently seen the case, and at that time there existed in both eyes a slight haze of the retina, with dilatation of the superior retinal vessels, but contraction of those inferiorly in the affected eye. The girl gave a clear specific history.

WILLIAM M. SWEET,
Clerk of Section.

DETROIT OPHTHALMOLOGIC AND OTOLOGIC CLUB.

Report of the meeting of November 4, 1902, by Walter R. Parker, M. D., Secretary.

Dr. Frothingham reported *Three Cases of Tumor of the Eye.*

CASE 1.—W. F., age 2 years. It was suddenly discovered that the child could not see out of right eye. No pain or inflammation. The ophthalmoscopic examination showed the left eye normal. The right eye showed a tumor which seemed to come well forward and starting from the inner side. $T = + I$. Enucleation was advised and the operation was made on the following day. Examination after showed glioma. Patient was heard from two years later and there were no signs of further trouble.

CASE 2.—W. G. When first seen eye Vis. R. Eye = 18/15. L. Eye = Blind. There was a slight staphyloma and which was diagnosed as a tumor of the eye and enucleation advised. He returned five months later. There was a high degree of exophthalmus and the tumor could be felt in the orbit. On operating a large melanotic sarcoma was found in the orbit, extending back along the optic

nerve and filling the interior of the eye. There were no signs of the return of the growth eight months after its removal.

CASE 3.—L. C. First seen Feb. 21, 1900. There had been a growth on the outer side of the eye near the cornea, since birth, which began to increase in size about six years before Dr. Frothingham first saw her. An attempt had been made to remove it but it grew more rapidly. A diagnosis of sarcoma was made, but the vision was good (20/20 each eye) and she would not consent to enucleation. There was no movement of the tumor and there was not much hope of successfully removing it. At the operation it was found that the tumor extended through the sclera and into the choroid, also involving the margin of the cornea. As much as possible was removed and the surface was covered with healthy conjunctiva. It healed well and she was not seen again until June 19, 1900. There were no signs then of an increase in the growth, which was reported as a melanotic sarcoma, and the removal of the eye was advised. On March 3, 1902, she returned. The tumor had started to grow about four months before, while the vision had diminished to 20/200. Enucleation was done the next day. Three months after the operation the socket looked perfectly healthy.

The following is a copy of the report of the microscopical examination. (Pathological Report; April 12th, 1900. Melanotic, mixed cell sarcoma. The growth consists of variously shaped cells, spindle, round and branched. Pigment occurs in masses. The conjunctival epithelium has taken an hypertrophic growth in an irregular manner owing to the irritation of the neoplastic growth. This might easily be mistaken for an epithelioma. Some parts of the growth show signs of degeneration.)

Dr. Gilman presented a paper entitled *Intratympanic Injections of Pilocarpin in Chronic Catarrhal Deafness*, which was discussed by Drs. Conner, Thuner, Frothingham, Campbell and Parker.

Dr. Frothingham reported a case of *iritis following iridectomy for glaucoma* in which a single instillation of atropine was followed by relief of pain, and adhesions were avoided. A woman, aged 68 years. Right eye absolute glaucoma. Left eye beginning simple chronic glaucoma. No complications at time of operation. On fourth day iritis set in. The question was whether to allow adhesions to form or risk the atropine. Decided to use atropine, pupil dilated and was followed by no increase of tension. Now, four months after the operation, eye is quiet, vision and fields normal.

Dr. Gillman reported a case of *normal vision of an eye with*

a piece of steel embedded in its uveal tract nearly seven months, and spontaneous expulsion of the alien particle, in a man aged 39, who, on March 22, 1902, suffered a perforating wound of the right eyeball, at the sclero-corneal junction, caused by a flying splinter of steel. The track of the wound led through the iris towards the ciliary body. The small tip of a Hirschberg magnet was inserted into the perforation and two small bits of steel were extracted from the eye. After a few days the eye recovered with normal vision, and the man returned to work.

On November 16, 1902, or nearly seven months later, he again presented himself, stating that for the past few days he felt something rough in the right eye which prevented free movements of the globe. An examination of the optic revealed a dark mass pointing out from the site of the former wound. This object was removed with some difficulty with iris forceps, and proved to be a wedge-shaped splinter of steel, which had become oxidized from its protracted lodgment in the eye. The splinter weighed $\frac{1}{4}$ of a grain. After two days' rest the man was able to resume work with normal vision.

Dr. Campbell showed patient with suspected *sarcoma of the choroid*, and reported the following case:

W. A., aged 43, a farmer, first consulted me in July, 1902.

The clinical history which he gave was to the effect that three months previously he noted that his right eye between the cornea and the external canthus was red and swollen.

Since the condition was first noticed there had been no change as far as the patient could determine.

Examination revealed an eye entirely free from irritation excepting in the region indicated where an elevated red area could be seen, there was no pain nor tenderness on pressure.

The appearance was identical with that sometimes seen in cases of episcleritis excepting that this growth seemed firmer and more resilient to the pressure of a probe and was not sensitive.

In order to clear up the diagnosis between a neoplasm and an inflammatory deposit he was placed first on salicylate of soda and then upon iodide of potash and mercury to the physiologic effect of each drug. Absolutely no effect on the elevation could be made and surgical intervention was decided upon.

The tumor was carefully dissected out and the wound closed by three sutures through the conjunctiva. The specimen was sent for microscopical diagnosis to the Detroit Clinical Laboratory and

the report received was "Round celled sarcoma with an abundant blood supply."

In the event of a return of the growth the eyeball will be enucleated and the orbit exenterated.

Dr. Parker exhibited *mount of Melano-sarcoma of the choroid* occurring in a patient aged 26 years. The tumor involved about half of the vitreous chamber.

Dr. Gillman exhibited *specimen of small melano-sarcoma of the choroid*. The tension in this case was subnormal until just before enucleation.

CHICAGO OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY.

REPORT OF THE MEETING OF DECEMBER 9, 1902.

BY BROWN PUSEY, SECRETARY.

The President, Wm. H. Wilder, in the Chair.

Dr. Wm. A. Fisher read a paper on *One Hundred and Fifty Magnet Operations*. Paper in full on page 26.

Discussion of Dr. Fisher's report.

Dr. Montgomery spoke of having recently had a case in which a foreign body penetrated the eyeball. The foreign body entered the globe at the intersection of the internal rectus and it made its exit just internal to the optic disc. The point of exit could be seen with the ophthalmoscope. The patient was an iron worker and the chip that hit him was a piece from the metal that he was working on. A large magnet was used with a negative result. An x-ray picture located a foreign body behind the globe. He saw another case recently. One hour before the patient consulted Dr. Montgomery, while he was hammering on iron, a chip flew into the left eye. Dr. Montgomery used the large magnet but was unable to get the foreign body. Two hours later he took the patient to Dr. Fisher and his large magnet. Dr. Fisher, after repeated trials, was rewarded by the appearance of the splinter of iron, 1-6 of an inch, long, in the anterior chamber, and the foreign body was brought out through the wound of entrance.

Dr. Montgomery congratulated Dr. Fisher upon the success that he reports, and upon the skill with which he uses the Haab magnet.

Dr. Hale said that the sideroscope can be made a very trustworthy instrument. If it is set up properly, as he has seen it, the vibrations

or electrical current even of a modern city need not influence its accuracy. Much depends, too, upon the length of the illuminated scale and its distance from the instrument. If properly adjusted, the movements produced by vibrations or currents are by no means so large as to simulate those caused by a foreign body of iron or steel when approached to the instrument.

Two of Dr. Fisher's statements should not go unchallenged. Cosmetically a sightless eye destroyed by a foreign body is often not so good as an artificial eye, and for this reason alone many atrophic globes should be removed. Pathologically, the sightless eye is often destroyed by cyclitis, and we can never tell when this useless globe may set up a cyclitis or sympathetic ophthalmitis in the other eye; therefore in every case it is wise, surgically, to advise the removal of a globe that has lost its vision through a foreign body.

Dr. Gradle: Without much personal experience in the use of the Haab magnet he could not help noting the discrepancy between some of Dr. Fisher's statements and many reliable reports in literature. The diagnostic value of the magnet must be disputed. Very often it fails to indicate the presence of a foreign body, except perhaps by bringing it to view in an undesirable way. Dr. Fisher's unfavorable comments on the Hirschberg magnet are contrary to general experience, as illustrated, for instance, by the brilliant report by Hirschberg himself of his last 150 cases, many of which had been watched for years. From his statistics and several other reports of large series by others, it appears that the small magnet fails in less than one-third of the instances, preserves a harmless but sightless eye in one-third, and saves good sight in more than one-third of all cases. Dr. Fisher's statistics cannot be analyzed as no details are given. But while the small magnet will always retain its usefulness as the handier and more accessible instrument the giant magnet is no doubt a valuable addition for selected instances. The fear of infection by introducing the sterile tip of the small magnet through a clean incision is not supported by experience. Its real danger is subsequent retinal detachment due to injudicious ploughing of the vitreous.

Dr. Pusey said that at one period during his hospital apprenticeship he was located where there was a Haab magnet. At that time this magnet was one of two that existed in a great city and consequently it was used frequently. The result of its use usually was disappointment. This was shortly after the magnet was put

up at this hospital and there were several surgeons, among whom the cases were divided. One of the speakers this evening mentions the fact that in a case under his care he failed to get the foreign body, but that later Dr. Fisher succeeded. In a case under the care of Dr. Wescott and himself, which was taken to Dr. Fisher shortly after he began working with the Haab magnet, the foreign body was not gotten. In another case taken to him a few months ago Dr. Fisher got the foreign body from the vitreous cavity immediately. Based on these observations the idea suggests itself that maybe experience makes one skillful in the use of the Haab magnet. Certainly the way Dr. Fisher removed the foreign body in his and Dr. Wescott's last case was astonishing and he congratulated Dr. Fisher on his excellent work.

A Device for Prevention of Symblepharon in Extensive Burn of Conjunctiva.—By Dr. E. F. Snyder. —By the interposition of a lead plate between inner lid and bulbus crowding this plate into the cul de sac so as to put its folds on the stretch, placing another lead plate over the skin surface of the lid, so as to sandwich the lower lid between the plates, passing sutures through perforations in the plates, including also the whole thickness of the lid in the sutures, tying these sutures over outer plate, leaving ends of these sutures long, fastening gauze bandages to long ends of sutures, bringing bandages under the chin and over the head so as to evert and put the lower lid on the stretch and keeping in this position for about eleven days, in the meantime cauterizing such granulations as appeared, he was able in a case of lime burn of the conjunctiva, to prevent adhesions where under ordinary forms of treatment he was quite sure they would have occurred.

Discussion.—Dr. Colburn said that the method of treatment and the disc presented by Dr. Snyder are novel but not wholly new. He presented a block of tin form modeled after the artificial eye shell with a large corneal opening. The shield is so shaped that it does not allow pressure upon the sclera away from the cul de sac or upon the cornea. The corneal area being open permits of frequent irrigation without removing the shell. After the first twenty-four hours it is worn without discomfort and can be kept in place for as many days as seems necessary. His first patient wore the shell eighteen days with a good result. The burn was from lime and involved the upper and lower lids, the cornea and conjunctiva above and below. The corneal scar was not sufficient to prevent good vision and but slight contraction and no symblepharon resulted

from the conjunctival burn. One patient on whom the shell was used would not undergo the first twenty-four hours of discomfort. Aside from the patient just mentioned, he has applied this shell to three patients with satisfactory results.

Dr. Pinckard said that it has been his experience that no mechanical device does good in cases of forming symblepharon. He has tried numerous forms of plates but is satisfied that the contraction is just as great with them as without them. In plastic work for the cure of symblepharon he still is in doubt as to their value. In some cases he has been convinced that they increased the amount of adhering surface of the graft; in others he is sure they were of no help.

Dr. Nils Remmen said that he thinks that twenty-four hours after such a burn with lime is too early to introduce plates for the prevention of symblepharon. It is impossible that soon to say how much tissue is destroyed. By waiting longer some such burns might prove to be only superficial and give rise to little or no further trouble and then, of course, we should not need to annoy the patient by such an operation.

Dr. Hotz: If the destruction of the conjunctiva does not reach down to the angle of the fornix, adhesions between the opposing surfaces can be prevented by the interposition of a small lead plate shaped somewhat like a half moon. Along its straight edge there are a number of small holes for the passage of threads. After the plate is inserted between the lower lid and eyeball, sutures are passed through the holes in the plate and the lid margin and tied; these sutures hold the plate in place, and no bandage is necessary. If the destruction involved the whole fornix I should treat it in the same way until all eschars are eliminated and a clean granulating wound is presented. Then I should spread over the lid surface, including the cul de sac, a Thiersch graft held in place by the reinsertion of the lead plate. A separate Thiersch graft is taken to cover the wound surface of the eyeball. If the lead plate is of the right size and shape it secures absolute immobility of the lid and ball, keeps the grafts in perfect contact with the wound surfaces and makes a displacement positively impossible. No bandage is necessary.

Vossius' Type of Interstitial Keratitis and Keratitis Desciformis with Exhibition of Patients.—By Dr. E. F. Snyder. —Dr. Snyder said that three months ago he was treating, at the same time,

two cases which clinically presented a striking similarity, but which etiologically and pathologically were entirely distinct.

One case was that of a girl eight years of age with saddle shaped nose, scars at the angles of the mouth, notched teeth and defective hearing—a case of hereditary syphilis. In both eyes there was an intense circumcorneal injection, marked photophobia and impairment of vision. The cornea in both eyes was steamy, from the limbus countless bloodvessels were making their way into the deeper layers of the cornea, about half way between the limbus and the middle of the cornea there was a gray, slightly yellowish ring, complete in the right eye, about $\frac{3}{4}$ complete in the left eye; this ring was lying in the deeper layers of the cornea and with the corneal loupe could be seen to consist of short lines of infiltration interspersed throughout with dots.

At the end of three or four weeks the rings began to clear and diminish in size, the cornea cleared from the periphery, till now only a few diffuse blotches remain in the center of each cornea. The case was the Vossius or annular type of interstitial keratitis.

The other case is that of a five year old boy. About three months ago his father picked a foreign body off the cornea with a toothpick. Shortly afterwards the eye became injected and sensitive to light. The patient consulted Dr. Snyder about three weeks after the beginning of the trouble.

The child kept the eye closed, there was a moderate amount of conjunctival and circumcorneal injection, the cornea was anaesthetic near the center of the cornea and in its deeper layers was a gray, slightly bluish ring and near the center of this ring an almost chalky white, opaque spot, both spot and ring under the loupe could be seen to consist of an aggregation of minute dots.

The periphery of the ring was sharply circumscribed, no blood vessels were present in the cornea, no ulcerations were present, the iris was not involved, the fundus was normal.

Since that time the case has run what might be called a sub-acute course. The eye would be perfectly quiet for a time, then there would be a slight exacerbation accompanied by a moderate amount of pain and photophobia.

The opacity became somewhat denser till it assumed the appearance of a disc rather than that of a ring. About four weeks ago a very interesting change in the condition took place. From the small opaque spot in the center numerous minute chalky white dots

seemed to emanate, arranging themselves in the form of a ring inside of the outer ring.

This inner ring is much whiter and denser than the outer one, but under the loupe it can be seen to consist of minute, chalky white dots. There are no ulcerations present and the dots lie in the deeper layers of the cornea. Owing to the clinical resemblance between this disease and the annular type of interstitial keratitis, many authors and especially Pfister and Guenert have confused the two, although their etiology and clinical course are so different.

About a year and a half ago Fuchs published a paper in the "*Klinische Monatsblätter*" accurately describing the disease, sharply differentiating it from the annular type of interstitial keratitis, identifying it as the *abscessus siccus* of the older writers, rechristening it by the name of "keratitis disciformis," placing it about midway between dendritic keratitis, on the one hand, and *ulcus serpens* on the other.

A Report of Three Cases of Infantile Cataract.—By Dr. J. Elliott Colburn.—Case 1. Male, aged ten years. Congenital syphilis. Inter-corneal opacities. Irides adherent to lower half of capsules. Broad anterior opacities in both lenses. Fundi not visible.

Following two months' constitutional treatment a discission was made on the right eye. The needle was passed to the side of the opaque area as the latter was too dense to admit it. Absorption was complete at the end of six weeks, excepting the central white disk which partially blocked the pupil. Later the capsule which obscured vision was perforated along side the opaque disk and good vision was obtained with correcting lens.

Eighteen months later the left eye was operated on. The needle was introduced to the nasal side of the pupil with its back toward the densely opaque disk. With gentle pressure the disk was moved back nearly out of the pupillary space where it now remains within the capsule but allowing a free pupil. Slight reaction and no pain followed the operations and 20/40 vision was secured with correction.

Case. 2. Male, aged seven years. Congenital syphilis. Partially blind from birth. Star shaped opacities in both lenses. Left eye, opacity obscured by semi-opaque cornea. Right cornea clear. Posterior synechiae. Light projection good.

Right eye was incised as for mature cataract, the knife passing through the iris and lens. The iris and capsule were dragged out, excised and all soft lens matter coaxed out. Vision three months

later equalled 20/60 and evidently would improve with further clearing of the cornea.

Case 3. Female, aged four and a half years, poorly nourished. Congenital cataracts of both eyes. No history of syphilis. Eyes small and deeply set. Oscillating nystagmus. Iris sensitive. Light projection good. Lens uniformly opaque and opalescent but not dense. Discission was performed on the right eye. As the needle was withdrawn it was turned slightly and the fluid flowed out of the wound freely and before the eye was bandaged there was but a slight trace of the lens substance in the anterior chamber and the pupil was free and almost normally black. No opaque nucleus could be seen. No reaction. Left eye was operated in the same manner with like results.

Eight weeks later correcting glasses were given and she was able to see small objects and the eyes began to act co-ordinately.

The points of interest in this case were the extreme fluidity of the lens and the total absence of any opaque nuclear matter.

Discussion.—Dr. Gradle mentioned his experience in a unique case of congenital cataract with unusual thickening of the anterior capsule. In a puny baby of eight months with diffuse congenital opacity of both lenses the capsule was found so tough that the discission needle could not pierce its central portion. In subsequent discissions a Knapp's knife was introduced through the extreme periphery of the capsule, but no wound could be made large enough to allow the lens substance to protrude into the anterior chamber. Nevertheless the lenses became partly absorbed without the least irritative reaction. But the capsular opacity did not change. Finally he extracted the thickened capsules with iris forceps through a linear incision and obtained perfectly black pupils. Although the ophthalmoscope showed a normal fundus the apparently bright baby was very slow to learn the use of its eyes.

The trustees of Bellevue and allied hospitals are preparing to establish a clinic for the treatment of trachoma, which is prevalent among the school children of New York city. The first floor and part of the second of the old building of the Gouverneur Hospital have been fitted up for the treatment of these cases. There will be the usual waiting room, operating room, recovery room, and a ward for each of the sexes, in which the patients may be kept for from twelve to twenty-four hours.

NOTES AND NEWS.

ITEMS FOR THIS DEPARTMENT SHOULD BE SENT TO
DR. BROWN PUSEY, 31 WASHINGTON ST., CHICAGO.

Dr. Adam Bednarski has been recognized as privatdocent of ophthalmology at Lemberg.

Dr. Solomon Klein, of Vienna, has been granted the rank and title of Professor of Ophthalmology.

Dr. Naito has been appointed to the hospital position in Tokio made vacant by the death of Dr. T. Inouye.

Dr. Nathaniel Feuer, professor of ophthalmology in the University of Budapest, died November 25th, 1902, aged 58 years.

James Bankart, senior surgeon to the West of England Eye Infirmary, died in Exeter, England, October 31st, aged 68.

The late Alexander C. Hutchinson, of New Orleans, bequeathed \$20,000 to the Eye, Ear, Nose and Throat Hospital of that city.

Dr. Frank Van Fleet, of New York City, has just retired from the presidency of the Medical Society of the County of New York.

Among other charitable bequests left by the late William Clark, of Newark, N. J., is \$6,000 to the Newark Eye and Ear Infirmary.

The Royal Westminster Ophthalmic Hospital, London, and the Bath Eye Infirmary were each bequeathed \$2,500 by the will of Mr. B. Packer.

Drs. Allen T. Haight, E. F. Snyder, W. O. Nance, and Clark W. Hawley, have been appointed ophthalmologists to Cook County Hospital.

Since September 18th, 1902, 6,347 children have been excluded from attending the schools of Brooklyn on account of disease. Of this number 1,979 were excluded because of eye diseases.

Dr. E. J. Bissell and Dr. Wheelock Rider, of Rochester, and Drs. F. Park Lewis and Lucien Howe, of Buffalo, have been appointed ophthalmologists to the Batavia Hospital Association.

Dr. Julian J. Chisolm, who founded the hospital in 1877, and for twenty-two years was its Executive Surgeon, retired in 1899. Since his retirement the medical management has been conducted by this Executive Committee.

During the past year the Massachusetts Charitable Eye and Ear Infirmary received by bequest \$10,000 from the late Anson J. White, \$3,000 from the late Mary Louise Ruggles and \$2,000 from the late Mrs. Nancy E. Rust.

In a report to the Ophthalmological Society, Dr. Trousseau states that the number of blind in France reaches 31,966, a proportion of 8 in 10,000. This proportion is considerably in excess of that in Denmark, Switzerland, Austria, and above all, Holland, where it is exactly 4.46 in 10,000.

A jury at Elizabethtown, N. J., has rendered a verdict for \$6,000 damages against David Flemming, who, while playing on the Lake Placid links last summer, threw his golf stick at his caddy, causing the loss of the sight of one of the boy's eyes. The caddy brought suit for \$10,000.

At the annual meeting of the Chicago Ophthalmological and Otological Society held Tuesday evening, January 13th, Dr. Chas. A. Beard was elected president of the Society for the coming year; Dr. H. B. Young, of Burlington, Iowa, was made vice-president and Dr. Brown Pusey was reelected secretary and treasurer.

In a list of Lord Lister's contributions to medical and scientific literature prepared by Prof. Chiene, of Edinburgh, and published in the Lister Jubilee number of the British Medical Journal (December 13, 1902), the first article recorded is, Observations on the Contractile Tissue of the Iris, which was published in the Quart. Journ. Micro. Soc., London, 1853.

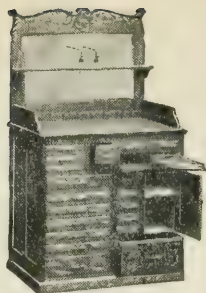
During his recent visit to Montreal a dinner was given at the Windsor Hotel to Dr. Casey Wood. Among those present were Dr. Francis W. Campbell Dean and other professors and lecturers of Bishops College. Dr. Roddick, Dean of the McGill Medical Faculty, Dr. H. S. Birkett, President of the Medico-Chirurgical Society, Sir Wm. Hingston and other prominent physicians.

Colors in the Treatment of the Insane.—A series of experiments as to the effects of various colors on the insane, now being tried on Ward's Island, are said to have developed some remarkable results. It is reported that a number of patients have been cured. Although the treatment is new to alienists, it is believed that it is one that will prove very successful.—*Amer. Med.*, Dec. 13, 1902.

At the annual meeting of the Board of Governors of the Presbyterian Eye, Ear and Throat Charity Hospital, Baltimore, the Medical Executive Committee, which has managed the medical affairs of the institution for the last four years, consisting of Drs. Herbert Harlan, Hiram Woods and Francis M. Chisolm, was reappointed for this year with Dr. Herbert Harlan as Surgeon-in-Chief.

The Ophthalmic Department of St. Luke's Hospital, Chicago.—A well equipped ophthalmic and aural department has been established in St. Luke's Hospital, Chicago, where every facility is given for the care of eye and ear cases. Nurses specially trained in these branches of surgery are in charge of the patients. An eye and ear outdoor department has recently been opened where poor patients are seen daily.

The opticians of the State of New York propose to make another effort to induce the Legislature to create a board of examiners in optometry, without a license from which it shall be illegal to practice optometry. This is defined as "the employment of subjective and objective mechanical means to determine the accommodative and refractive states of the eye, and the scope of its functions in general, or the act of adapting glasses to the eye by using such skilled means as will determine their choice." Physicians duly licensed to practice medicine in the State are to be exempt from the provisions of the proposed act. Others who practice optometry without a license will be adjudged guilty of a misdemeanor.



(SUGGESTED BY DR. EDWIN PYNCHON.)

"THE ALLISON" SPECIALISTS' CABINETS

Enable the physician to administer treatment without leaving his seat. They provide commodious drawers for instruments, protecting them from dust and moisture.

(Fully described in Booklet "P")

Catalogue "A" tells of our tables, cabinets and chairs.

W. D. ALLISON CO.

No. 1 Madison Ave.
NEW YORK

129 1/2 E. South St.
INDIANAPOLIS

35 E. Randolph St
CHICAGO



W. A. FISHER, M. D., Pre A. G. WIPPERN, M. D., Vice-Pres.

Chicago Eye, Ear, Nose and Throat College,

206 EAST WASHINGTON STREET, CHICAGO, ILL.

A Post Graduate School for Practitioners
of Medicine

Located in its own building two blocks from Court-house. Large hospital in building for Eye and Ear cases only. Abundant clinical material. Courses one month. Enter any time. Teaching clinical

Free Beds are provided for charity cases.

To which appointments are made through the Profession only.

Write for catalogue and information to

J. R. HOFFMAN, M. D. Sec'y.

DOCTOR! Do you treat diseases of the NOSE, THROAT and EAR? If so you cannot afford to be without

The Laryngoscope

The Representative Journal of Record of Oto-Laryngology

Note its many claims for special recognition:—

It is the only regular Monthly Journal exclusively devoted to the diseases of the Nose, Throat and Ear.

It is the Official Organ of three of our Representative Oto-Laryngologic Societies.

It will keep you informed of the progress of the world in this trio of specialties.

Its subscription price places it within the reach of all.

It contains more original matter than any journal published representing these specialties.

It always enjoys the contributions and endorsements of the best and ablest writers in the profession.

It is managed by a live Editorial Staff, and free from the influence of any clique or society.

Only \$3.00 per annum, in advance.

We offer the Laryngoscope and the Ophthalmic Record to new subscribers for \$6.00 per annum.

Address, **THE LARYNGOSCOPE**, 3858 Westminster Place, St. Louis, Mo.

When writing please mention the Ophthalmic Record.

NOW IN PRESS

A work of 150 octavo pages, illustrated with 5 plates,

ON

VISUAL ECONOMICS

*With Rules for Estimation of the Earning Ability After Injuries
to the Eyes*

BY

H. MAGNUS, MED. DR., OF Breslau, GERMANY,
(Professor of Ophthalmology in the University
of Breslau, Germany, etc., etc.)

AND

H. V. WÜRDEMANN, M. D., OF MILWAUKEE, WIS., U. S. A.
(Professor of Ophthalmology in the Milwaukee
Medical College, etc., etc.)

FOR THE USE OF THE MEDICAL AND LEGAL PROFESSIONS, BUSINESS CORPORATIONS AND INSURANCE OFFICIALS.

AMONG THE MANY FAVORABLE COMMENTS UPON THE BOOK ARE
THE FOLLOWING ABSTRACTS FROM BOOK REVIEWS:

The Lancet (London, Eng.):

"It will surely fall into the hands of barristers and will be to the medical witness who is not able to hold his own and has not made himself master of the contents. We recommend it strongly to every one who is likely to be called as a medical expert in accidents affecting the eyes."

The Insurance Press (Franklin Webster):

"The physician is now expected to have some more or less essential basis for his judgment as to damages suffered. As a manual for accident companies, lawyers and the courts in cases in which impairment of vision as the result of accident is the cause of action, this work will be found to abound in suggestions and to furnish many guides of great usefulness."

The American Lawyer:

"This is a work of unusual value to the lawyer whose practice is likely to include many so-called accident cases. Taking it all in all, the work is an exceedingly valuable one. It certainly deserves a place in the library of every attorney whose practice may lie in the realm of accident law."

Archives of Ophthalmology (Dr. J. A. Sterling):

"This is an epoch-making work in that it gives us a clue how to dispense with conflicting expert testimony in suits for damages or alleged malpractice."

American Medicine (Dr. Walter L. Pyle):

"Drs. Magnus and Wurdemann have placed in their debt not only the members of the medical and legal professions, but also the officials of many American and British commercial corporations, and we trust that they will find substantial reward in a large circulation."

FOR SALE BY SUBSCRIPTION AT \$2.50 A COPY

BY

THE OPHTHALMIC RECORD

OR BY

C. PORTH, 105 Grand Ave., Milwaukee, Wis.

First See America



In the great Southwest are titanic chasms, petrified forests, prehistoric ruins, quaint Pueblo Indian villages, giant redwoods and old Spanish missions. All on the Santa Fe.

The world has nothing to compare with the Grand Canyon of Arizona.

Travel in luxury on a high-class train—the **California Limited.**

All about the California tour in our books.

General Passenger Office, Atchison, Topeka & Santa Fe Railway,
Great Northern Building, Chicago

The Optical Journal

has bought **The Focus**

and is now the only
exclusive optical
trade paper in the
United States.

Enlarged to 150 pages. Price, \$2.00
a year; twenty cents a copy.

If you don't get the Op-
tical Journal you don't
get the optical news.

Send for a copy.

FREDERICK BOGER PUB. CO.

36 Maiden Lane,
New York.

POLK'S MEDICAL REGISTER AND DIRECTORY

WAS ESTABLISHED IN 1886.

Do Not Be Deceived By Imitators.

See that the name **R. L. POLK & CO.**

**IS ON THE ORDER BEFORE YOU
SIGN IT.**

POLK'S is the only complete Medical Directory.

POLK'S is the only Medical Directory having an
index to all physicians in the United States.

POLK'S has stood the crucial test of time with
increasing popularity. It thoroughly covers
the field.

**R. L. POLK & CO., Publishers,
DETROIT, MICHIGAN.**

SUBSCRIBE NOW.

When writing please mention the Ophthalmic Record.

Improved Holmgren Test for Color Blindness



Gold and Silver Medals Awarded
at the Pan-American Exposition

This set has been assembled in accordance with the standard as selected by the Committee appointed by the American Ophthalmological Society for the purpose of adopting standards and methods for examining acuteness of vision, color sense and hearing for Railroad and Marine service. To each skein is attached a metallic tag so numbered that a record of each test can be made. *Full directions for use accompany each set.*

PRICE, COMPLETE - \$3.50

E. B. Meyrowitz Optician

MAKER OF

High-Grade Eye Ear and Throat Instruments,

Trial Cases, Ophthalmometers, Perimeters, Stevens' Clinoscope,
Phorometer and Tropometer and Electro-Medical Apparatus.

125 West 42d St., New York
650 Madison Ave., New York

604 Nicollet Ave., Minneapolis
360 St. Peter St., St. Paul

3 Rue Scribe, Paris, France

104 East 23d Street, NEW YORK

...THE...

POST-GRADUATE MEDICAL SCHOOL OF CHICAGO

W. FRANKLIN COLEMAN, M. D., Prest.
W. L. BAUM, M. D., Treas.

A. H. FERGUSON, M. D., Vice-Prest.
A. R. ELLIOTT, M. D.

Is now located in
its new building,

2400 Dearborn Street.

A school for practitioners of Medicine
and Surgery.

Teaching exclusively Clinical.

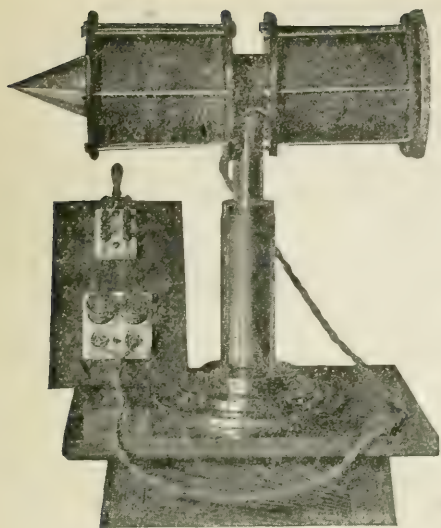
Abundance of material.

Large hospital in School Building.

Send for latest Bulletin of information to

FRANKLIN H. MARTIN, M. D., Sec'y.
2400 Dearborn St.

When writing please mention the Ophthalmic Record.



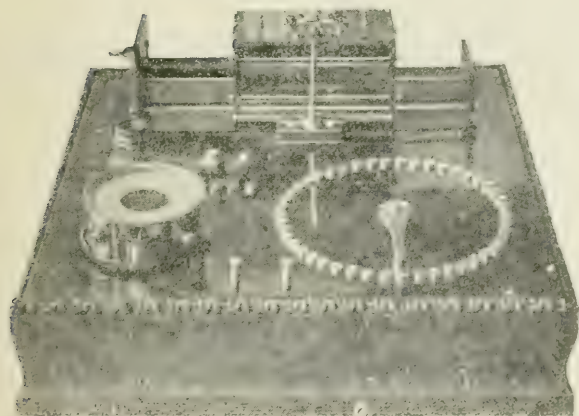
ELECTRO MAGNET

To Operate on the
Lighting Currents

Cautery
Transformers

STATIC MACHINES

X-RAY APPARATUS



GALVANIC

...and....

FARADIC

Switch

Boards

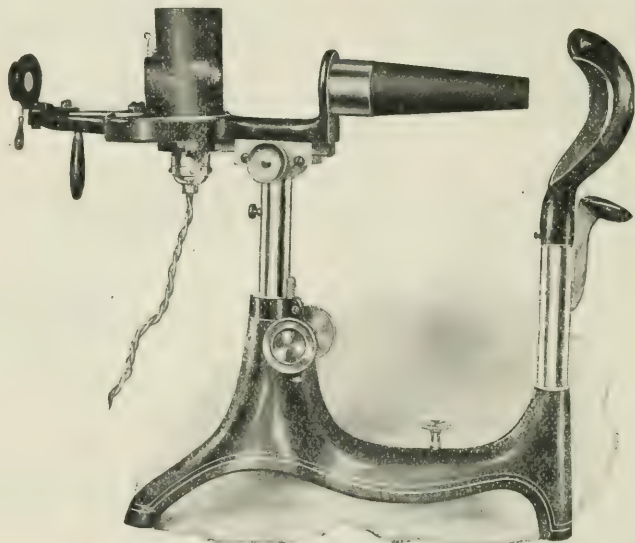
HIGH TENSION COILS

—WRITE FOR CATALOGUE—

Hulse & Davis, *KANSAS CITY,
MISSOURI.*

When writing please mention Ophthalmic Record.

THE NEW GENEVA Ophthalmoscope and Retinoscope Combined



PATENTED SEPTEMBER 16, 1902

This is our first presentation of this new instrument to the public, although many hundreds of them have been sold on sight without advertising.

The Ophthalmoscopic Attachment gives a clear and enlarged view of the fundus with its arteries and veins and optic disc standing out perfectly, any abnormal developments being shown with equal clearness.

Its greatest advantages are that no dark room is required to get good results and no previous experience is necessary to be able to operate it perfectly, where with the old method months of practice was necessary.

Our Booklet explains how to operate both the Retinoscope and Ophthalmoscope, and how to change from one to the other. The findings of the Retinoscope are the full corrections, without additions or subtractions. Lenses all in place.

WRITE TODAY FOR FULL PARTICULARS

GENEVA OPTICAL COMPANY

CHICAGO

ST. LOUIS

DES MOINES

When writing please mention the Ophthalmic Record.



WING to numerous inquiries for the 1897 volume, as well as for odd numbers of the OPTHALMIC RECORD we announce the following: Volumes I to V may be had by ordering of us direct. The price of each of these volumes is \$4.00; single numbers, as long as they last, 35 cents each. Of volumes VI, VII, VIII, IX, X and XI the price of single numbers, as long as they last, will be 50 cents each. The full volume, \$5.00. Very few of the complete sets are left. Single numbers of 1902, 50 cents. Carriage on any of the above prepaid to addresses in United States and Canada. Address the

OPHTHALMIC RECORD,

THE HIGH BUILDING - - - - - CHICAGO

Annals of Ophthalmology

The largest illustrated Quarterly Eye Journal published. Each issue over 200 pages of original matter and properly drawn up abstracts of recent Domestic and Foreign Ophthalmic Literature.

Subscription Price, \$4.00 per Annum.

Annals of Otology, Rhinology and Laryngology

Each issue over 150 pages original matter and properly drawn abstracts of recent Domestic and Foreign Literature.

BOTH JOURNALS, \$7.00.

Subscription Price, \$4.00 per Annum.

We will furnish the Annals of Ophthalmology and the Ophthalmic Record for \$7 per annum; the Annals of Ophthalmology and the Annals of Otology and the Ophthalmic Record for \$10 per annum, in advance, to new subscribers.

ADDRESS: JONES H. PARKER, PUBLISHER,

Laclede Building,

ST. LOUIS, MO.

When writing please mention the Ophthalmic Record.

The C., I. & Co.

SELF-LUMINOUS OPHTHALMOSCOPE

IN presenting to the profession our New Self-Luminous Ophthalmoscope, we do so confidently, believing that it will only be necessary for you to try it once to become its enthusiastic advocate, as the retina simply becomes an open book when it is used, and if you can read this open book your diagnosis will be absolute.

We would enumerate its many special features as follows:

Has wide and brilliant field.

Mydriatic not necessary unless pupil is unusually contracted.

The intensity of light can be controlled.

Your light is always in position.

The field is easy to locate.

Can be used very close to patient's eye.

Is free from reflections and glare.

Can be used in any position, or while your patient is in reclining posture.

Is always ready.

Can be used outside of Darkroom.

No hinge or joint to permit displacement of light.

A complete Ophthalmoscope containing nineteen lenses in compact and perfect form.

Neat, handsome and well finished.

Put up in a silk-lined morocco case of proper form and size.

Is provided with battery with rheostat.

If your office is provided with current controller, battery is unnecessary.



CUTS HEREON TWO-THIRDS THE ACTUAL SIZE

PRICE COMPLETE, INCLUDING BATTERY, \$15.00 NET CASH
PRICE, WITHOUT BATTERY, \$12.00 NET CASH

Sold by all Jobbers and

CHAMBERS, INSKEEP & Co.

MANUFACTURERS

Optical Goods & Eye, Ear, Nose & Throat Surgical Instruments.

88 AND 90 WABASH AVENUE, CHICAGO, ILL.

When writing please mention the Ophthalmic Record.

